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ABSTRACT

This study tested two hypotheses: (1) that the frequency of oral and written communications between a principal and his teachers was related to teacher morale, and (2) that the communication frequency was related to school organizational climate. The sample consisted of 37 Ohio elementary school principals and 370 teachers. Principals kept 20-day records on types of formal communications as the variable of frequency of principal-teacher communications. Teachers completed a scale measuring faculty perception of the school organizational climate. No significant correlation was discovered between total principal-teacher communications and teacher morale. [Part I, a doctoral dissertation, is available from University Microfilms, a Xerox Company, 300 North Zeeb Road, Ann Arbor, Michigan 48103. (Order No. 70-1461, MF $3.00, Xerography $6.20.)] (Computer printouts on pages 203-204 of Part II not reproducible.) (Author/MLF)

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AN ANALYSIS OF THE RELATIONSHIP OF THE DEGREE OF SATISFACTION OF TEACHERS WITHIN CERTAIN OHIO SCHOOLS WITH THE FORMAL COMMUNICATION OF THEIR PRINCIPAL

Dr. Carl Helwig
University of Akron
Akron, Ohio 44304

December, 1969

U.S. DEPARTMENT OF
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Part I - Organizational Climate and Frequency of Principal-Teacher Communications in Selected Ohio Elementary Schools, Unpublished Doctoral Dissertation, University of Akron, June, 1969.

Part II - The Teacher Satisfaction Scale

FINAL REPORT

Grant Number OEG-0-8-080015-3715

PART I

ORGANIZATIONAL CLIMATE AND FREQUENCY OF PRINCIPAL-TEACHER COMMUNICATIONS IN SELECTED OHIO ELEMENTARY SCHOOLS

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December, 1969

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ORGANIZATIONAL CLIMATE AND FREQUENCY OF PRINCIPAL-TEACHER COMMUNICATIONS IN SELECTED OHIO ELEMENTARY SCHOOLS

A Dissertation
Presented to
the Graduate Faculty of the College of Education
University of Akron

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Carl Helwig
June, 1969

Organizational Climate and Frequency of
Principal-Teacher Communications
in Selected Ohio Elementary Schools

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Dissertation

Approved:

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ABSTRACT

Through Spearman correlation, frequency of principal-teacher communications was correlated with esprit, a subdimension of A. W. Halpin and D. B. Croft's Organizational Climate Description Questionnaire. The sample consisted of thirty-seven cooperating Ohio elementary school principals and 310 teachers. The general hypothesis tested was that the frequency of oral and written communications between a principal and his teachers was related to teacher esprit (morale). Since esprit on the OCDQ, according to Halpin and Croft, tended also to vary directly with the climate of the school, it was conjectured that the frequency of principal-teacher communications would also reveal some relationships with school organizational climate.

Findings included no significant relationships at the .05 level of acceptance between the frequency of principal-teacher communications and teacher esprit. When principal-teacher communications were separated into principal downward communications to faculty and teacher upward communications to principal, it was found that neither of these sub-variables correlated with esprit. Schools with open and closed school climates, the extreme climates on

the *OCDQ*, were then singled out into separate groups. The principal behavioral subdimensions on the *OCDQ* in these two groups of thrust, production emphasis, and aloofness, as well as the teacher behavioral subdimensions of hindrance and disengagement, were correlated with principal downward communications to faculty; again no significant relationships were discovered between the latter variable and each of these subdimensions. These subdimensions were assumed to manifest certain communicative styles with the oral and written aspects further assumed to be latent ingredients within these larger behavioral patterns. With similar hypothesizing, teacher upward communications to the principal were correlated in open and closed climate schools with the teacher subdimensions of disengagement and esprit, and again no significant relationships were obtained.

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I owe a special debt to my first year advisor, Dr. Robert D. Brumbaugh, University of West Virginia.

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CHAPTER I

THE PROBLEM

I. THE PURPOSE AND IMPORTANCE OF THE STUDY

Central to a changing system of interaction is the process of communication. Communication aids or hinders goal achievement within the organization and it affects the organization's group membership.[1] In 1938, Barnard succinctly stated the issue:

> "In any exhaustive theory of organization, communication would occupy a central place, because the structure, the extensiveness, and the scope of the organization are almost entirely determined by communication techniques."[2]

The purpose of this investigation, therefore, is:

(1) to study the relationship between the frequency of principal-teacher communications and the elementary school's organizational climate.

---

[1] Harold Guetzkow, "Communications in Organization's" in Handbook of Organizations. James G. March ed. (Chicago: Rand McNally and Co., 1965), p. 534.

[2] Chester I. Barnard, The Functions of the Executive (Cambridge, Mass.: Harvard University Press, 1938), p. 9).

(2) to study the relationship between the frequency of principal-teacher communications and the degree of teacher morale or esprit.

Bidwell suggested research into the principal-teacher communication phenomenon within an organizational context. Few research studies have been addressed, according to Bidwell, to the problem of the school as a formal organization.[3]

II. ADMINISTRATIVE THEORY FROM WHICH THIS STUDY DERIVES

Administration has been seen by Hemphill from a theoretical framework of group problem-solving,[4] by Griffiths from a theoretical framework of decision-making,[5] while Getzels and Guba, viewing administration as a social process, have offered the following model from their social systems conceptualization.[6] The model provides a means of viewing a possible formal organization of the school.

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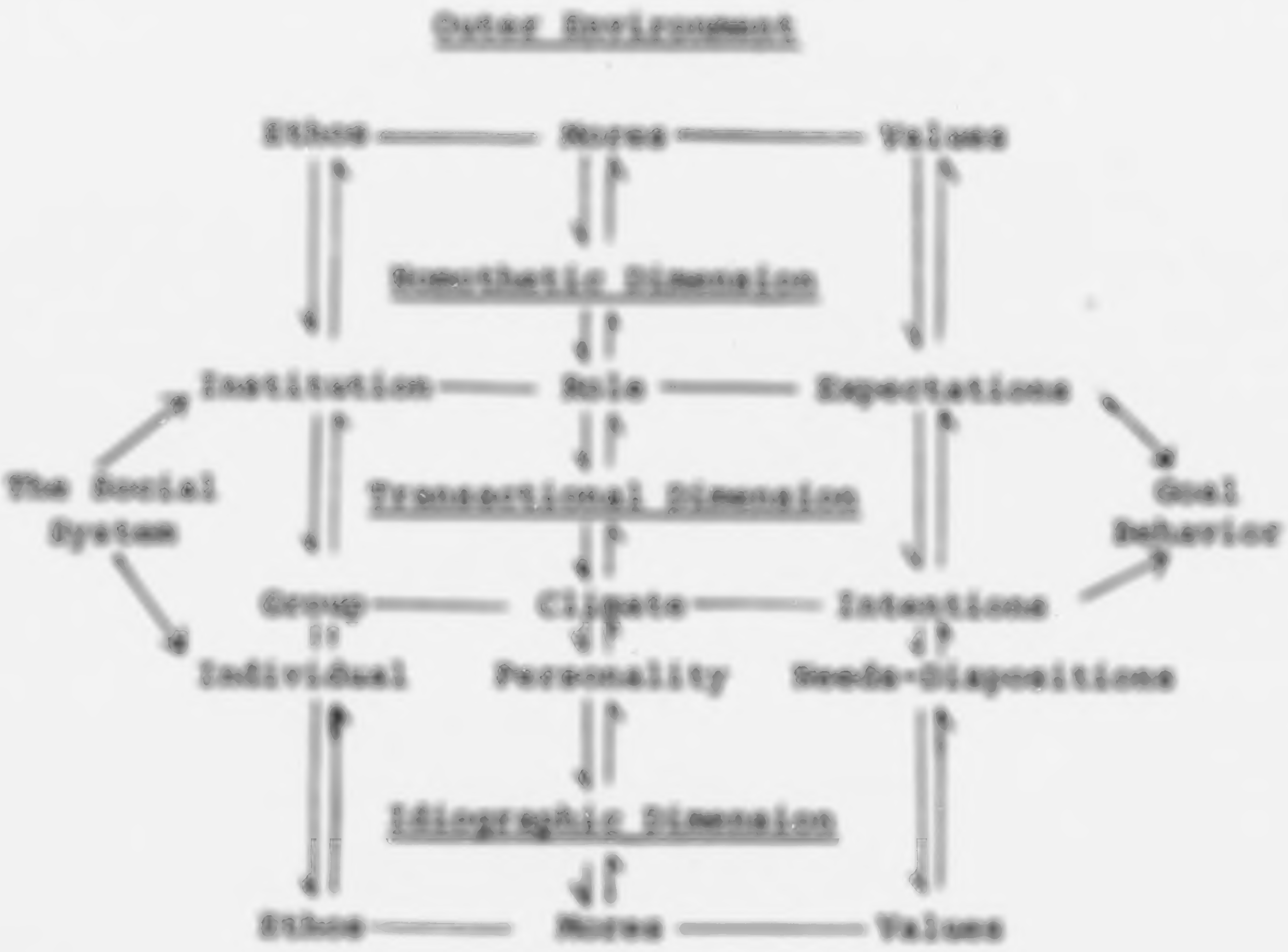
[3] Charles E. Bidwell, "The School As a Formal Organization," in Handbook of Organizations. James G. March, ed. (Chicago: Rand McNally and Co., 1965), pp. 972-1022.

[4] John K. Hemphill, "Administration As Problem-Solving" in Administrative Theory in Education. Andrew W. Halpin, ed. (New York: The Macmillan and Co., 1958), pp. 89-118.

[5] Daniel E. Griffiths, "Administration As Decision-Making" in ibid, pp. 119-149. Also see Daniel E. Griffiths, Administrative Theory (New York: Appleton-Century-Crofts, Inc., 1959).

[6] Jacob W. Getzels, "Administration As a Social Process," in ibid, pp. 150-165. Getzels and Guba first published their model in the School Review cited in the footnote 7. The chapter in footnote 6 was authored by Getzels alone. Footnote 8 cites a third source on the Getzels-Guba model.


Outer Environment
Ethos
Mores
Values
Nomothetic Dimension
Institution
Role
Expectations
The Social
System
Transactional Dimension
Goal
Behavior
Group
Climate
Intentions
Individual
Personality
Needs-Dispositions
Idiographic Dimension
Ethos
Mores
Values

Their model provided a set of integrated concepts which together could describe educational administration as a social process through systems state analysis. For Getzels and Guba, the term social system meant, not a large aggregate of human interaction, such as a society, but rather a small given community as a school. Moreover, they conceived their social system to consist of two major classes of phenomena, "which are at once conceptually independent and phenomenally interactive," the social or nomothetic and the psychological or idiographic. Along the nomothetic dimension from left to right on the model are institutions with certain roles and expectations that fulfill the goals of the system. Along the idiographic dimension from left to right on the model are individuals with certain personalities and needs-dispositions. The nomothetic (or normative) dimension of the interaction within the social system, then is a function of institution, role, and expectation while, on the other hand, the idiographic (or personal) dimension of this interaction is a function of individual, personality, and needs-dispositions. The total output of all this interaction determined the collective goal behavior within the social system.[7]

But the nomothetic and idiographic dimension also interpenetrate one another into a third intermediate dimension, the transactional which, furthermore, becomes a blend of the nomothetic and the idiographic. Thus the nomothetic and idiographic dimensions are relative, not absolute, dimensions and group, climate, and intentions comprise the elements of the transactional dimension. Role and personality then are constantly in "dynamic transaction," with transaction further implying "situation-orientation" rather than "institution-orientation" (nomothetic) or "personality-orientation" (idiographic).[9]

---

[7] Jacob W. Getzels and Egon G. Guba, "Social Behavior and the Administrative Process," The Social Review, 65 (Winter, 1957), 424.

The idiographic, nomothetic, and transactional dimensions account for the interaction within the social system, but the latter is also affected by the larger external environment with its ethos, interacting with and affecting the elements of institution, group, and individual; its mores, interacting with and affecting the elements of role, climate and personality; and finally, its values, interacting with and affecting the elements of expectations, intentions, and needs-dispositions. A study of the schematic model above best illustrates these structural interactions.

The model may now be applied to the three variables in this investigation, frequency of principal-teacher communications, teacher esprit, and organizational climate. The social system herein is the elementary school and along the nomothetic dimension is the institution of the elementary school principalship with certain definable roles engendering with it certain role expectations, among the latter two, the role of communicator and the quantity of his oral and written communications to his teachers. Along the idiographic dimension are the teachers with certain personalities and certain psychological needs-dispositions, among them, esprit. Intermediate between the institutions of principalship and faculty is the institution of group, in this instance, the principal and his faculty. The interaction between the role of principal and his teachers' personalities produce organizational climate, including as one of its components, teacher esprit. According to Lachman, a model in theory construction may have representational, inferential, interpretive, or pictorial capacities.[9] Here, it is believed, the Getzels and Guba model is interpretive by presenting certain phenomena within the school setting, both structurally as well as functionally, and at the same time in interaction.

---

[9] Robert E. Sweitzer, "An Assessment of Two Theoretical Frameworks" in Educational Research: New Perspectives, Jack A. Culbertson and Stephen P. Hencley, eds. (Danville, Illinois: The Interstate Printers and Publishers, Inc., 1963), pp. 109-136, passim.

Because the frequency of principal-teacher communications in the public elementary school may be a determinant in the school's organizational climate as well as its teacher esprit (morale), the variable, frequency of principal-teacher communications, will be correlated with variable, esprit. The general hypothesis to be tested is that frequency of oral and written communications between a principal and his faculty, collectively as well as downward from the principal to his faculty and upward from the faculty to the principal, is significantly related to teacher esprit (morale). Since teacher esprit in Halpin's research tended also to vary directly with school organizational climate, it is also conjectured in the present investigation that the frequency of principal-teacher communications will reveal some significant relationships with school organizational climate.[10] Organizational climate in the present investigation will be measured by an Organizational Climate Description Questionnaire (OCDQ)[11] and principal-teacher communications by a Principal's Data Sheet (PDS)[12] with school organizational climate being conceived as a system state variable and teacher esprit and frequency of principal-teacher communications as intra-system variables.[13]

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[9] Roy Lachman, "The Model in Theory Construction," Psychological Review 67 (1960), 113-129, passim.

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[10] Andrew W. Halpin, Theory and Research in Administration (New York: The Macmillan Company, 1966), pp. 131-249.

[11] Ibid.

[12] Charles L. Wood, "An Analysis of the Communication of Principals and Relationship to the Satisfaction of Teachers in Selected Dependents' Schools," (unpublished doctoral dissertation, The University of Iowa, 1966).

[13] A rather thorough discussion of the concept, system, and system state variables is contained in R. Jean Hills', The Concept of System (Eugene, Oregon: The Center for the Advanced Study of Educational Administration, University of Oregon, 1967. Hills' notions of order relationship, selectivity, abstraction and system state were applied to the Getzels-Guba model as well as the theorizing behind this three variable study.

In addition to Hills on system state variables, also see Walter Buckley "Structural-Functional Analysis in Modern Sociology," in Modern Sociological Theory, Howard Becker and Alvin Boskoff, eds. (New York: Holt, Rinehart and Winston, 1966).

CHAPTER II

RELATED LITERATURE

I. RESEARCH IN COMMUNICATIONS IN GENERAL

"The system of communication and control," said Smith and Brown, "is of central importance for the functioning of organizations. To be effective, it requires adequate information transfer, high quality decision-making and the implementation of decisions by activated members."[1] Communication, to Smith and Brown was "the transmission of information from a source to a recipient, whether these be individuals, groups or organizations." In the present investigation, the Smith and Brown definition of communications will be employed. But Smith and Brown also formulated a hypothesis, which they themselves never fully tested, namely, that "the basic variable in organizational functioning is the pattern of communication and (1) upward communication will be positively related to organizational effectiveness while (2) downward and/or multidirectional communication will be positively related to member satisfaction."[2] Thus, the present investigation will draw from the second part of this hypothesis, that is, that the frequency of an elementary school principal's downward communications to his faculty will be positively related to the degree of teacher esprit.

---

[1] Clagett G. Smith and Michael E. Brown, "Communication Structure and Control Structure in a Voluntary Association," *Sociometry*, 27 (December, 1964), 453.

That group behavior is affected by group communication patterns was borne out by two of Leavitt's empirical studies. Communication patterns affected both individual as well as group satisfaction,[3] and free feedback aided in interpersonal communication by producing high confidence and amity, while conversely, zero feedback produced low confidence and hostility.[4] According to Guetzkow and Dill, freedom of communication within the group tended to promote organizational development, whereas restriction of communication hindered the establishment as well as the maintenance of the social structure within the group.[5] Leavitt as well as Guetzkow and Dill have demonstrated the desirability of a free communication network within the group. Does this also imply that a principal will have more communication with his faculty in a school empirically-determined to have an open organizational school climate as contrasted with a principal and a school with a closed organizational school climate?

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[2] *Ibid.*, 452-453.

[3] Harold J. Leavitt, "Some Effects of Certain Communication Patterns on Group Performance," *Journal of Abnormal and Social Psychology* 46 (1951), 50.

[4] Harold J. Leavitt and Ronald A. H. Mueller, "Some Effects of Feedback on Communication," *Human Relations* 4 (1951), 410.

[5] H. Guetzkow and William R. Dill, "Factors in the Organizational Development of Task-Oriented Groups," *Sociometry* 20 (1957), 202.

Within the elementary school's formal communication network the principal, under most circumstances, occupies a position of centrality, and more communications generally will be routed through his position than any other position within the school. According to Shaw, there were no relationships in his investigation between centrality, equal distribution of information, unequal distribution of information and group morale.[6]

Hemphill, Griffiths and Frederickson conceived a principal's courses of action to fall into three categories: imaginativeness, organizational change, and appropriateness, the last being abandoned "because it was not possible to determine the appropriateness of a large majority of the courses of action that were taken for it proved to be impossible to obtain a reasonable degree of consensus among qualified judges as to the appropriateness of the different courses of action."[7] With the remaining two, imaginativeness and organizational change, the judges viewed the former to be in some degree creative or imaginative, and the latter as changes in personnel, duties, assignments, policies, practices, or procedures. The following correlations were obtained with these two variables and the forms of the principal's communicative behavior indicated on the left as conceived by Hemphill, Griffith and Frederickson.[8]

---

[6] M. E. Shaw, "Some Effects of Unequal Distribution of Information Upon Group Performance in Various Communication Nets," *Journal of Abnormal and Social Psychology* 49 (1954), 551-552.

	Imaginative	Organizational Change
Asks subordinates	.61	.34
Informs subordinates	.45	.29
Discusses with subordinates	.47	.22
Communicates face-to-face	.52	.30
Discusses with superiors	.45	.24

(An r of .17 or higher is significant at the .01 level)

These various studies indicated findings which may have theoretical value in the principal-teacher educational setting. A definition of communication, its possible impact on group morale, and principal behavioral patterns involving communications have been cited in order to demonstrate the need for a study within the school building between the frequency of principal-teacher communications and teacher esprit in an organizational climate context.

---

[7] John K. Hemphill, Daniel E. Griffiths, and Norman Frederickson, Administrative Performance and Personality (New York: Teachers College, Columbia University, 1962), p. 90.

[8] Ibid.

II. RESEARCH IN COMMUNICATION IN EDUCATION

In his attempt to view the concept, organization, as a "self-steering, self-correcting, self-modifying communication network" or "learning net concept," Dorsey sought to produce a communication net model which was free from certain restraints of older mechanistic and organic models. For instance, the mechanistic model produced a one-to-one relationship between force and reaction and had no evolving structure, while the organic model tended to produce a teleological view of organization as a "living organism" incapable of internal self-modification.

Net, information and action were the three basic elements in Dorsey's communication net model. He described these three as follows:

> (1) The *net* (which represents group or organizational components and relationships) consists physically of a complex of *decision centers* and *channels* which seek, receive, transmit, sub-divide, classify, store, select, recall, recombine, and retransmit *information*. In a group or organization these centers and channels consist first of the nervous systems of persons and second of such nonhuman aids as written documents and photographic films of various kinds, electronic receiving, recording, processing, calculating, and transmitting devices, and filing systems. The net is formed by the arrangement of decision centers and channels into systems or patterns of varying degrees of stability.

> (2) Information is a patterned relationship between events which can be transmitted through a sequence of channels by a series of codifications and by which one type of event is substituted for another in such a way that the event substituted in some sense stands for the other. Broadly speaking, information is that which is communicated. Thus it includes orders, instructions, directives, suggestions, requests, inquiries, reports, and so on--all of which are simply the forms in which information can be transmitted. The form used, incidentally, often serves the metacommunicative function of providing information as to how the communicator intends the information it carries to be interpreted.
>
> (3) Action by the net is the manipulating and processing of information by the operations listed in (1) above as the information circulates more or less continually through the net. The arrangement of decision centers and channels into patterns permits the operation of screening, evaluating, priority, routing, and monitoring mechanisms. The structuring or setting of these mechanisms is arranged to encourage the development or maintenance of certain kinds of communication events or relationships (both--or either--internal to the net and/or in its environment) and to avoid or discourage others. Through the mechanisms mentioned above, feedback operates as the results of outgoing communications are observed and corrections are made in subsequent communications. In addition to this self-correction, the net can modify its internal relationships and processes in the light of comparison of present with previous experience evaluated and stored in the net's memory and in the light of environmental changes--hence the term self-modifying or learning net.[9]

Meyers from his own research rejected in its entirety the Dorsey model and suggested instead "that those interested in doing research studies in administrative communications of school districts or other related areas select models or theories from the field of psychology, sociology or social psychology."[10] As a result, the use of the Getzels and Guba model from social psychology in the present investigation.

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[9] John T. Dorsey, Jr., "A Communication Model for Administration," Administrative Science Quarterly 2:3 (December, 1957), 317-318.

III. RESEARCH IN EDUCATION ON TEACHER MORALE

The overt behavior of the principal, including his communicative behavior, may affect what loosely has been termed as teacher satisfaction or teacher morale. Rejecting a single a priori concept of morale, Halpin and Croft said:

> ... the assumption of a unidimensional approach is untenable, for research on morale has yielded, above all, one unequivocal finding: morale, whatever it may or may not be, is not unidimensional in its structure. Whatever is being described by the term 'morale' is multifaceted; any attempt to describe this 'something' as if it had but one single face does violence to the phenomena that we seek to understand.[11]

According to Hood, the principal appeared to be the prime determinant in teacher morale: "The principal is the key nonpersonal factor in the professional environment of the teacher. The teacher's relationship with the principal is more important in determining morale level than is the teacher's relationship with other faculty members."[12]

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[10] Michael J. Myers, "An Analysis of Selected Administrative Communications in a School System: With Emphasis on the Communicative Modulation Effect," (unpublished doctoral dissertation, New York University, 1966), p. 3.

[11] Andrew W. Halpin, Theory and Research in Administration, (New York: The Macmillan Co., 1966), p. 142.

Bidwell studied the congruence as well as the divergence of teachers' perceptions toward their respective administrators finding that:

> (1) Convergence of teachers' role-expectations toward the administrator and their perceptions of his behavior were accompanied by an expression by these teachers of satisfaction with the teaching situation.
>
> (2) Divergence of teachers' role-expectations toward the administrator and their perceptions of his behavior were accompanied by an expression by these teachers of dissatisfaction with the teaching situation.
>
> (3) The level of teaching satisfaction was dependent upon convergence or divergence of expectations and perceptions of their fulfillment.[13]

Bidwell's statistical data supported the conjecture in the present investigation of the existence of a relationship between teachers' perceptions of principal role expectation and teacher morale.

---

[12] Evans C. Hood, "A Study of Congruence of Perceptions Concerning Factors Which Affect Teacher Morale," (unpublished doctoral dissertation, East Texas State University, 1965), Dissertation Abstracts (1965), p. 1589-A.

[13] Charles E. Bidwell, "The Administrative Role and Satisfaction in Teaching," Journal of Educational Sociology 29 (September, 1955), 41-47, passim.

IV. A JUSTIFICATION FOR THE RESEARCH DESIGN IN THE PRESENT INVESTIGATION.

Brown differentiated between organizational and cognitive outputs, the former, because of its conceptualization, belonging to the administrator, and the latter, because of its conceptualization, belonging to the teacher:

> To the tempting question of what kind of leadership is 'best' an answer is typically attempted in educational, not organizational terms. Research that seeks to throw leadership styles against the criteria of educational outputs (e.g., school marks, standardized test results) becomes trapped in what may be termed 'the cognitive fallacy.' Good leadership, in and of itself, is a necessary but not a sufficient condition for a high cognitive payoff at the pupil level. The explanation lies in organizational, not educational terms. Good leadership, like other healthy organizational dynamics, has a facilitating payoff; it facilitates the process of the organization, not its product. ... The point is stressed because a large number of leadership, climate, and open-mindedness studies used a cognitive criterion. Administrators not infrequently do likewise in practice. Cognitive outputs are the teachers' outputs; organizational outputs like satisfaction and morale are the administrator's. That the principal's effect on cognitive outputs is only mediated through organizational outputs was illustrated in a recent principalship survey report, wherein a .34 correlation between principal leadership and pupil performance shrank to .01 when teacher morale was partialed out.[14]

---

[14] Alan F. Brown, "Reactions to Leadership," *Educational Administration Quarterly* 3:1 (Winter, 1967), 71. Brown is referring to Neal Gross and Robert E. Herriott, *Staff Leadership in Public Schools: A Sociological Inquiry*. New York: John Wiley and Sons, 1965, p. 56.

Brown's own study considered administrative outputs in terms of teacher satisfaction, confidence in the principal, and school performance estimate. Said Brown: "These findings clearly indicated that (1) teacher satisfaction and (2) confidence in the principal are sensitive to the perceived leadership of the school, but (3) teachers' estimate of the school's performance, is not."[15]

In the present investigation, the three variable design of organizational climate, teacher esprit and frequency of principal-teacher communications results in an organizational, not cognitive, outputs design and, therefore does not itself become entrapped in what Brown has termed a "cognitive fallacy."

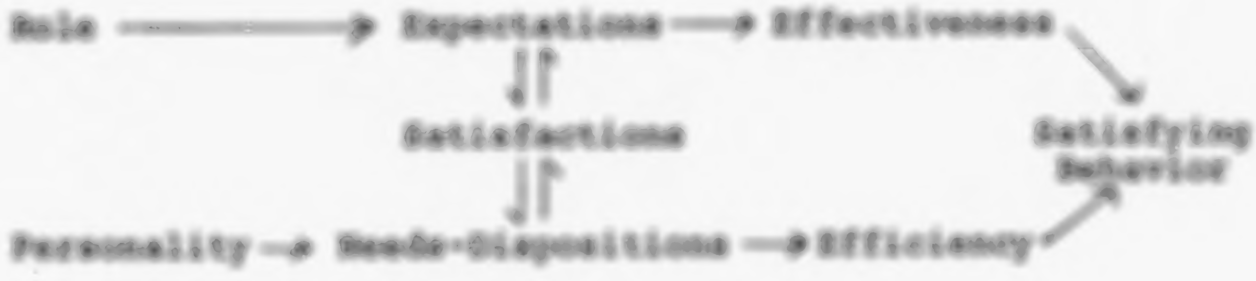
V. THE VARIABLE ESPRIT AND ORGANIZATIONAL CLIMATE

It will now be argued that esprit as conceived for the present investigation is a component of organizational climate and esprit in and of itself tells little about the school and its relationship with the communications within the school. The nomothetic-idiographic theoretical model of Getzels and Guba from Chapter I with its additional refinements below will be used to explain the theoretical design to be employed in the present investigation.

---

[15] *Ibid.*, 71.

Getzels and Guba from their social systems model conceived the interplay between role expectations and personality needs-dispositions toward efficient, effective and satisfying behavior to be as follows:


Role
Expectations
Effectiveness
Satisfactions
Satisfying Behavior
Personality
Needs-Dispositions
Efficiency

Getzels and Guba defined behavior as "behavior relative to some expectation held by the rater for the behavior," effectiveness as "the observed behavior of the individual being rated," and efficiency as a "relationship between needs and behavior." Functionally, then, effectiveness is a congruence of behavior with expectations, and efficiency a congruence of behavior with needs-dispositions, and from the model, satisfaction "is a function of the congruence of institutional expectations with individual needs-dispositions."[16] As thus conceived, the interplay and the congruence of institutional role expectations and individual needs-dispositions produce satisfying behavior, both institutionally and individually, which, furthermore, is contributory toward goal behavior.

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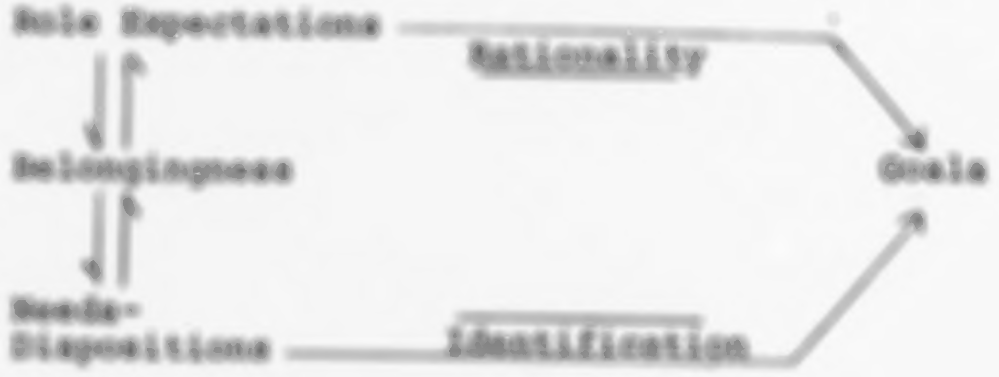
[16] Jacob W. Getzels and Egon G. Guba, "Social Behavior and the Administrative Process," The School Review 65 (Winter, 1957), 433-435.

Getzels and Guba also devised a model for esprit as it related to goal behavior saying:

> Definitions of 'morale' 'esprit' like those of 'effectiveness,' 'efficiency,' and 'satisfaction,' are necessarily more or less arbitrary. The model suggests one possible definition which takes into account the two elements most often identified with morale in the literature, namely, feelings of identification and belongingness, and it also suggests a third additional element, rationality, often overlooked, which is, however, as vital as the other two.[17]

They defined rationality in their following model as representative to "the extent to which expectations placed upon a role are logically appropriate to the achievement of the proposed institutional goals."[18]



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[17] Ibid., 438-439.

[18] Ibid.

Thus whatever esprit may be, it does affect, as conceived by Guba and Getzel, organizational goal behavior. Moreover, it may be related to organizational climate, a system state variable.

Lonsdale well summarized the problem involved with the term esprit: "Few words used in administration or organizational theory have accumulated such a conglomeration of connotations." A probable way out of this dilemma, said Lonsdale, was to view esprit as a function of "maintaining the organization." Esprit was thus "a feeling of the participants in an organization" resulting from:

> (1) perceived productivity or progress toward the achievement of the tasks of the organization and (2) perceived job satisfaction or the satisfaction of the individual needs through the interaction of the participant in his role within the work group and the total organization.[19]

His conceptualization of esprit, concluded Lonsdale, did not leave it as a variable detached from other organizational variables, but rather related it to organizational purpose, and allowed it to become "a measure of successful interaction among individual needs, motivation, and incentive." "It becomes a measure of the favorable achievement in the view of the participant, of the inducementcontribution balance," he said, and with respect to role theory "... it makes esprit, additionally, a measure of effectiveness in role enactment, of congruence between role perceptions and role expectations, and of congruence between role expectations and needs-dispositions." Lonsdale, it seemed, was conceptualizing from the Getzels and Guba model.

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[19] Richard C. Lonsdale, "Maintaining the Organization in Dynamic Equilibrium," in *Behavioral Science and Educational Administration 63rd Yearbook of the National Society for the Study of Education, Part II*. Daniel Griffiths, ed. (Chicago, Illinois: The University of Chicago Press, 1964), pp. 142-177, *passim* and p. 165.

For Lonsdale, esprit and organizational climate were related for they both were tied to organizational purposes: "Indeed organizational climate might be defined as the global assessment of the interaction between the task-achievement dimension and the needs-satisfaction dimension within the organization, or, in other words, of the extent of task-needs integration."[20] Lonsdale cited three studies on organizational climate, including the Halpin and Croft investigation involving 71 elementary schools and their 1,151 teachers in six states from six different regions in the United States.[21] Describing organizational climate as the organizational personality of the school, Halpin and Croft through factor analysis, said Lonsdale, derived six profiles or organizational climates for the elementary school. These profiles, moreover, arranged themselves on a continuum from open to autonomous, controlled, familiar, paternal and closed climates. Three parameters were also discovered in describing the social interaction, that is, the organizational climate within the elementary school: authenticity, satisfaction, and leadership initiation. The first, Halpin and Croft defined as the "openness" of the behavior of the principal and his teachers; the second, the "attainment of conjoint satisfaction in respect to task accomplishment and social needs;" and the third, the latitude with which the principal, as well as his teachers, initiated leadership acts. In this investigation, the primary concern is with the second conceptualization, namely, that satisfaction (esprit) is "the attainment of conjoint satisfaction in respect to task accomplishment and social needs." All this particular social interaction for Halpin and Croft resulted in esprit, but esprit itself for them was not the sole determinant of organizational climate.

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[20] Ibid.

[21] Andrew W. Halpin, Theory and Research in Administration. (New York: The Macmillan Company, 1966).

VI. RELIABILITY AND VALIDITY RESEARCH WITH THE ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNNAIRE (OCDQ)

Validation of the OCDQ was completed by Pritchard by utilizing both elementary faculty and non-faculty personnel in his sample. Between these two groups, two of the OCDQ's eight subdimensions, thrust and consideration, in a Pearson r correlation, were significant at the .01 level. A third subdimension, hindrance correlated at the .05 level, and the fourth and fifth subdimensions, esprit and production emphasis, correlated at the .10 level. The remaining three subdimensions, aloofness, disengagement, and intimacy, did not correlate at the .10 or a higher level. However, "the eight subdimensions on the OCDQ are viable concepts," concluded Pritchard, "which can be used to assess the favorability of work atmosphere surrounding the elementary school."[22]

Smith, also with an elementary school sample, held the OCDQ to be "empirically sound and viable," that it was externally and internally consistent, and that the internal definitions of organizational climate were also consistent. Smith based his conclusions on the significance ($p < .05$) he discovered between five "factor variables" obtained through factorial analysis and the eight subdimensions of the OCDQ. These five "factor variables" were derived from thirty-one original variables selected by Smith and were identified by him to be: (1) the situation, real and perceived (2) the size of the school (3) the principal's professional stability (4) the principal's perceived behavior and (5) the principal's attributes. Generally, concluded Smith, his empirical evidence supported the theoretical as well as the conceptual structure of the OCDQ.[23]

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[22] James L. Pritchard, "Validation of Organizational Climate Description Questionnaire Against Perceptions of Non-Faculty Personnel," (unpublished doctoral dissertation, Stanford University, 1966), pp. 100-109, passim.

Brown replicated the Halpin conceptualization of the OCDQ, finding his own reliability coefficients to compare "favorably with those of the Halpin study," (cited in Chapter III in detail), as well as identifying a similar climate categories in his Minnesota sample as Halpin and Croft did with their sample except for the category, controlled climate. Brown used three methods to check the eight OCDQ subdimensions. First, communality estimates of the rotated factor solution were used as lower bound estimates of equivalence. Second, since the communality included only the common variance, the average subdimension scores of the odd and even-numbered teachers in each school were computed for an odd-even respondent reliability coefficient. Third, correlations were computed between the teachers' responses to the first and second testing in Brown's pilot study, thus giving him a test-retest reliability coefficient. With an N of 46 and $p < .001$ Brown, for example, found the esprit subdimension to have a reliability coefficient of .68 by each of the first two methods and a reliability coefficient of .81 by the third. From his findings, Brown recommended that "the OCDQ is a well-constructed instrument which can and should continue to be used."[24]

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[23] David C. Smith, "Relationships Between External Variables and the Organizational Climate Description Questionnaire," (unpublished doctoral dissertation, Northwestern University, 1966), pp. 108-118, *passim*.

Sargent found principals perceiving school climate more favorably than teachers. In Sargent's case, all eight subdimensions were better perceived by the principals than their teachers with the exception of the subdimension aloofness ($p < .02$), in this instance, the two perceptions being equal. As a result, said Sargent:

> Because principals and teachers have disparate perceptions of climate dimensions points to the importance and complexity of communication in a high school. Since teachers and principals disagreed in their perceptions of three of four climate dimensions derived from principal behaviors, they apparently differ in their interpretations of the principal's actions. The non-verbal messages inherent in the principal's actions are not always congruent with his intended messages.[25]

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[24] Robert J. Brown, "Identifying and Classifying Organizational Climates in Twin City Area Elementary Schools," (unpublished doctoral dissertation, University of Minnesota, 1964), *passim*.

Also in monograph form: *Organizational Climate of Elementary Schools*. Minneapolis, Minnesota: Educational Research and Development Council of the Twin Cities Metropolitan Area, Inc., 203 Burton Hall, University of Minnesota, 1965), p. 4, p. 7.

[25] James C. Sargent, "An Analysis of Principal and Staff Perceptions of High School Organizational Climate," (unpublished doctoral dissertation, University of Minnesota, 1966), p. 191, p. 213.

Also in monograph form: *Organizational Climate of High Schools*, Minneapolis, Minnesota: Educational Research and Development Council of the Twin Cities Metropolitan Area, Inc., 201 Burton Hall, University of Minnesota, 1967, p. 24.

Thus, frequency of communication between a principal and his teachers may be related to organizational climate. "Principals seemed inclined to view climate more favorably than teachers ... This implies that Open schools may have more reliable channels of communication between staff and administration," concluded Sargent.

In this section, various dissertations have been cited to demonstrate the reliability and the validity of the OCDQ. Further evidence on its reliability is cited in Chapter III.

CHAPTER III

THE RESEARCH DESIGN AND PROCEDURES

I. POPULATION AND SAMPLE

The population for this investigation consisted of the 3,187 elementary schools in Ohio as listed in the 1966-67 *Educational Directory of the State of Ohio*.[1] Proportionate random sampling by type school allowed the mailing of seventy-two requests to city schools, sixty requests to country schools, and eight requests to exempted village schools. Fifty-two principals replied that they were willing to cooperate. Thirty-seven principals actually completed their *Principal's Data Sheet* (*PDS*) over the same twenty work day, the other fifteen failing to respond to a tracer letter after the instruments had been mailed to them.

Each cooperating principal was sent ten copies of the *Organizational Climate Description Questionnaire* (*OCDQ*). It was believed that a fifty per cent approximate sampling with the *OCDQ* would provide a sufficient index of a school's organizational climate. Each principal was asked to distribute randomly among his faculty the ten *OCDQ*'s. For the total sample, 310 OCDQ's were returned of the 645 sent to the cooperating principals, representing a 47 per cent response for the total sample. Table I shows the pertinent data by school for the sample. Since the unit of correlation was the school by faculty, the per cent of return for the OCDQ usually ranged from seventy to one hundred per cent with the exception of Schools 115, 141, and 144. By thus sampling generally fifty per cent or more of the eligible faculty population within each of the thirty-seven schools, a high degree of precision could be attained in inferring to the whole faculty population of each school in the sample.[2]

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[1] Kathleen Jenkins, compiler, *Educational Directory: State of Ohio, School Year 1966-67* (Columbus, Ohio: Ohio State Department of Education, 1966).

Of the thirty-seven schools in the sample, twenty-one were city schools, thirteen, country schools, and three, exempted village schools. No discernible reason can be given about the fifteen principals who failed to reply to the tracer letter other than that eight were from city schools, six, county schools and one, an exempted village school. That these fifteen principals in these schools failed to reply may have biased the sample as well as the procedure employed whereby each cooperating principal selected the teachers to whom he passed out the OCDQ's.

Table II shows biographical data on the thirty-seven principals in the sample.

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[2] Robert J. Brown, Organizational Climate of Elementary Schools (Minneapolis, Minnesota: Educational Research and Development Council of the Twin Cities Metropolitan Area, Incorporated, University of Minnesota), p. 3.

TABLE I

SCHOOL NUMBER, SCHOOL NAME, PUPIL ENROLLMENT, FACULTY SIZE, NUMBER AND PER CENT OF OCDQ FORMS SENT AND RETURNED

School Number	School Name	Pupil Enrollment	Faculty Size	Forms Sent	Forms Returned	Per Cent Returned
102	Aberdeen	133	14	10	9	90
103	Cook	143	10	10	10	100
104	Belleville	785	25	10	8	80
105	Penhole	361	14	10	10	100
106	Yellow Springs	529	18	10	8	80
107	Pickaway	291	10	10	10	100
108	Southeast	605	13	10	9	90
109	Central	526	20	10	7	70
111	Slocum	509	17	10	8	80
113	Reading	899	42	10	8	80
114	Pleasant Hill	826	26	10	10	100
115	Jefferson	483	17	10	5	50
116	Liberty	345	11	10	8	80
117	Green	303	11	10	8	80
118	Arlington	260	13	10	10	100
119	Woodside	438	14	10	10	100
120	College Corner	365	17	10	9	90
121	Bates	175	17	10	10	100
122	Crestwood	327	12	10	8	80
125	Maple	457	15	10	8	80
126	Celina	496	20	10	8	80
127	Gorham	317	12	10	7	70
129	Oak	167	8	8	8	100
131	Esteen	521	21	10	9	90
132	Bruce	429	13	10	10	100
133	Clarksville	616	22	10	8	80
134	Farmer	276	10	10	9	90
135	Brush	807	25	10	9	90
136	McKinley	379	15	10	9	90
139	Goodman	297	8	8	7	88
140	Stevenson	528	20	10	9	90
141	Townview	1,155	41	10	5	50
143	Beach	291	10	10	9	90
144	Southeastern	478	16	10	5	50
147	Whitney	395	13	10	10	100
148	Miami	667	21	10	9	90
150	Washington	1,069	36	10	10	100

TABLE II

BIOGRAPHICAL DATA OF THE PRINCIPALS IN THE SAMPLE

School Number	Sex		Age					Experience				Years in Present School					Degree		
	M	F	20-30	31-40	41-50	51-60	61-70	1-10	11-20	21-30	31-40	1-5	6-10	11-15	16-20	21-25	AB	MA	PhD
102	X				X				X				X				X		
103	X				X				X			X						X	
104	X				X				X					X				X	
105	X					X			X							X		X	
106	X				X					X		X						X	
107	X				X					X				X				X	
108	X					X			X			X						X	
109	X					X				X					X				*X
111	X			X					X			X						X	
113	X			X					X			X						X	
114	X			X					X				X					X	
115	X			X					X			X						X	
116	X			X					X			X					X		
117		X			X				X					X				X	
118	X				X				X			X						X	
119	X			X					X			X						X	
120	X			X				X				X						X	
121		X		X				X				X						X	
122	X			X				X				X						X	
125	X					X		X				X						X	
126	X				X					X		X						X	
127	X		X					X				X						X	
129	X			X					X						X			X	
131	X				X				X					X				X	
132	X			X					X					X				X	
133	X				X				X			X					X		
134	X			X					X					X				X	
135	X			X					X			X						X	
136	X				X						X	X						X	
139	X			X				X					X				X		
140	X			X					X			X						X	
141	X			X				X				X						X	
143		X				X		X				X						X	
144	X						X			X			X					X	
147	X			X				X				X						X	
148	X				X			X						X				X	
150	X			X					X			X						X	

*Honorary

II. DEFINITION OF TERMS

1. *Principal* - the incumbent in the position of elementary principal as listed in the 1967-68 *Educational Directory of the State of Ohio* in any of its 3,107 public elementary schools.

2. *Teacher* - any faculty member so determined by any principal in 1 above and to whom the *OCDQ* had been given for completion.

3. *Organizational Climate* - the "personality" of an elementary school as measured by the *OCDQ*.[3]

4. *Communications* - the transmission of information from a source to a recipient whether this be an individual or a group.

5. *Principal-teacher communications* - communications, oral or written, whether downward from the principal to his faculty, individually or collectively, or upward to the principal, individually or collectively, from any faculty member, or group thereof, or the total faculty and its frequency over a sample period of time as indicated on the *PCS*, a record kept by the principal.

6. *Principal communications* - the downward communications of the principal as indicated in 5 above.

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[3] Andrew W. Halpin, *Theory and Research in Administration* (New York: The Macmillan Co., 1966), p. 131.

7. Teacher communications - the upward communications of the faculty membership as indicated in 5 above.

8. Esprit - see below and Appendices C and D for greater detail.

III. INSTRUMENTATION AND DATA

Two instruments were used in the present investigation: an Organizational Climate Description Questionnaire and a Principal's Data Sheet.

1. The Organizational Climate Description Questionnaire

A letter of authorization for the use of the OCDQ is attached as Appendix A, and a copy of it as Appendix B. In Appendix C a detailed description of the six prototypic organizational climates identified by the OCDQ, as well as its eight subdimensions are included. An item breakdown of these eight subdimensions appears in Appendix D. Here a brief description of the OCDQ follows.

This instrument, constructed under the auspices of the U. S. Office of Education, was developed by Dr. A. W. Halpin, of the University of Georgia and D. B. Croft of the University of New Mexico. It is concerned with four principal behavioral patterns and four teacher behavioral patterns as all eight of these patterns are perceived by a given school's teacher population. The four principal subdimensions are aloofness, production emphasis, thrust and consideration and the four teacher subdimensions are esprit, intimacy, disengagement and hindrance. These eight subdimensions are described in full detail in Appendix C.

In brief, aloofness refers to formal and impersonal behavior by the principal and production emphasis as close supervision by him of his staff. Both of these are perceived by the teachers, in general, as being negative attributes. On the other hand, thrust and consideration are seen as positive attributes, the former as the principal's effort to keep his school moving without close supervision, and the latter to his efforts to treat his teachers in a humane manner.

The four teacher subdimensions again are divided into two positive, esprit and intimacy, and two negative, disengagement and hindrance, teacher attributes. In brief, esprit refers to teacher morale in terms of task and social needs and intimacy to their enjoyment of friendly relations among themselves. On the other hand, disengagement is little or no involvement in task-achievement by the teachers and hindrance as the teachers' perceptions of their principal's tendency to burden them with hindering tasks or busywork.

Some aspects of the OCDQ's validity have been discussed in Chapter II and obtained through related research done with the OCDQ. From a composite of the eight subdimensions in their own research Halpin and Croft identified six prototypic organizational climates along a continuum from low to high which they label as closed, paternal, familiar, controlled, autonomous and open. Halpin and Croft's own reliability coefficients and three-factor rotational solution yielded the following results with the "high communalities found for each of the subtests providing estimates - and encouragingly high estimates of the reliability of the eight subtests."[4]

The split-half reliability coefficients as well as the odd-even numbered respondent reliability coefficients are shown in Columns 1 and 2 in the following table for each of the eight subdimensions of the OCDQ. In Column 3 is shown the three-factor rotational solution with the extracted factors of individual social needs, group esprit, and social control explaining sixty-two per cent of the total variance.

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[4] *Ibid.*, pp. 160-165.

ESTIMATES OF INTERNAL CONSISTENCY
AND OF EQUIVALENCE
FOR THE EIGHT OCDQ SUBTESTS[5]

OCDQ Subtests	Split-half Coefficient of Reliability, Corrected by the Spearman-Brown Formula[a] (N = 1,151)	Correlation Between Scores of the Odd-Numbered and the Even-Numbered Respondents in Each School[b] (N = 71)	Communality Estimates[c] for Three-Factor Rotational Solution (N = 1,151)
Disengagement	.73	.59	.66
Hindrance	.68	.54	.44
Esprit	.75	.61	.73
Intimacy	.60	.49	.53
Aloofness	.26	.76	.72
Production Emphasis	.55	.73	.53
Thrust	.84	.75	.68
Consideration	.59	.63	.64

[a] Estimate of internal consistency.

[b] Estimate of equivalence.

[c] These are lower-bound, conservative estimates of equivalence.

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[5] Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Chicago: The Midwest Administration Center, University of Chicago, 1963), p. 49.

The acceptable reliability of the OCDQ was again demonstrated by Anderson who in a test-retest Pearsonian r correlation as well as an odd-even respondent Pearsonian r with a Minnesota sample obtained the following reliability coefficients ($p < .01$).[6]

Anderson's Reliability Coefficients

Test-Retest Pearsonian r		Pearsonian r Correlation of Odd-Even Respondents
Disengagement	+.567	+.541
Hindrance	+.458	+.791
Esprit	+.805	+.685
Intimacy	+.653	+.668
Aloofness	+.196	+.708
Production Emphasis	+.787	+.692
Thrust	+.504	+.763
Consideration	+.805	+.556

In addition to the above and the validity of the OCDQ discussed earlier in Chapter II, other specific citations in this respect are indicated below.[7]

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[6] Donald P. Anderson, "Relationship Between Organizational Climate of Elementary Schools and Personal Variables of Principals" (unpublished doctoral dissertation University of Minnesota, 1964), p. 81.

[7] James L. Pritchard, "Validation of Organization Climate Description Questionnaire Against Perception of Non-Faculty Personnel," (unpublished doctoral dissertation, Stanford University, 1966), pp. 62-66; Angeline G. Boisen, "Relationships Among Perceptions Held by Principals and Teachers for the Organizational Climate of Elementary

2. The Principal's Data Sheet

The *Principal's Data Sheet (PDS)*, attached as Appendix E, was designed to obtain the frequency of the following types of communication within the elementary school:

a. written principal-initiated memos.
b. written principal-initiated bulletins.
c. written teacher-initiated memos.
d. oral principal-initiated communication to faculty groups.
e. oral principal-initiated communication through individual teachers conferences.
f. oral teacher-initiated communication through individual conference with the principal.
g. oral teacher-initiated group conferences with the principal.[8]

Each principal was asked to keep his own twenty-day record for these types of communication. Identical twenty-day periods were recorded by the thirty-seven principals in the sample.

The entire seven categories will at times be referred to as principal-teacher communications, while categories a,

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Schools," (unpublished doctoral dissertation, University of Maryland, 1966), p. 114; Robert P. Stromberg "Value Orientation and Leadership Behavior of School Principals," (unpublished doctoral dissertation, Pennsylvania State University, 1966), pp. 34-35; Robert E. Flanders, "The Relationship of Selected Variables to the Organizational Climate of the Elementary School," (unpublished doctoral dissertation, University of Georgia, 1966), -p. 68-71.

[8] Charles L. Wood, "An Analysis of the Communication of Principals and Relationship to the Satisfaction of Teachers in Selected Dependents' Schools," (unpublished doctoral dissertation, The University of Iowa, 1966). With permission of the author.

b, d, and e group themselves into the principal's downward communications to his faculty and categories c, e, f, and g group themselves into the faculty's upward communications to its principal.

The reliability and validity of the PDS may be justified as follows. First, the PDS was submitted to three elementary school principal judges who concurred on the validity of this instrument insofar as it applied to principal-teacher communications within the elementary school building.

Second, nine intern principals and their respective supervising principals were asked to keep separate twenty day records of the PDS for the identical twenty day period. This record-keeping also required the interns to not inform their principals that the interns themselves were obtaining the same information. The data obtained by each of the nine interns were correlated by item with his paired principal's data through the Spearman rank correlation. The obtained rho's for each item of the PDS were as follows:

1. written principal-initiated memos.	.72	($p < .05$)
2. written principal-initiated bulletins.	.85	($p < .01$)
3. written teacher-initiated memos.	.68	($p < .05$)
4. oral principal-initiated communication to faculty groups.	.75	($p < .05$)
5. oral principal-initiated communication through individual teacher conferences.	.72	($p < .05$)
6. oral teacher-initiated communication through individual conference with the principal.	.35	(not significant)
7. oral teacher-initiated group conferences with the principal	.69	($p < .05$)

In addition, for a more global reliability, each intern's total frequency count of the seven items on the PDS was correlated with his respective principal's total frequency count of the seven items on the latter's PDS. In this instance, the obtained Spearman rho was .82 ($p < .01$).

IV. THE SCORING OF THE OCDQ

By computer, the data cards for the present investigation were scored at the New Mexico Testing Services, Box 4216, Harvard Station, Albuquerque, New Mexico 87106, a branch of the University of New Mexico. Raw scores, double standardized scores and climate scores for the sample were obtained from the University of New Mexico on IBM sheets. Each respondent had eight subtest raw scores, each raw score being obtained by a summation of the items pertinent to a particular subtest and this scaled score divided by the corresponding number of items for that subtest. The quotient was rounded to the nearest two-digit score.[9]

To obtain double standardized scores, the raw scores of all schools were standardized according to the mean and the standard deviation of each subtest. Then all eight standardized subtest scores were again standardized by computing the mean and the standard deviation of the eight standardized subtest scores for each school. For both standardization procedures, a mean of 50 and a standard deviation of ten became the standard scoring system. Said Halpin and Croft of this standardization:

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[9] Halpin, *op. cit.*, pp. 160-162.

> These standardized scores told us two things. For example, we knew that a score above 50 on a particular subtest indicated, first that the given school scored above the mean of the sample of that subtest, and second, that the score on that subtest was above the mean of the school's other subtest score. ...By standardizing the raw scores both normatively and ipsatively, we had approximated a double-centered matrix. This double standardization technique allows us to examine the relationship between the scores on the subtests, with the differences among the means of the subtest scores for each school in the sample held statistically constant. In short, the interschool variance and the intraschool variance are not confounded.[10]

The IBM sheets also showed each school's organizational climate. Halpin and Croft had determined prototypic profile scores for each of the six organizational climates in their own research. Each school in this sample had six climate similarity scores, obtained by computing the absolute difference between each subtest score in the school's profile and the corresponding score on the first prototypic profile and so on.[11] Thus the eight subtests of each school in this sample were compared with those of each subtest score on each of the six prototypic profiles. In each of the eight instances, the sum of the absolute differences between the profile scores was computed. A low sum indicated that the sampled school's profile and its prototypic profile score were highly similar, while a large sum indicated high dissimilarity. The sampled school received that organizational climate designation for which its profile similarity score was the lowest among all of its six climate scores.[12]

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[10] Halpin, op. cit., pp. 167-168.

[11] These prototypic scores appear in ibid, p. 174.

V. THE USE OF THE SPEARMAN RANK CORRELATION

The nonparametric Spearman (rho) rank correlation was selected for the main statistic in the present investigation for it is a distribution free statistic and has about a 91 per cent efficiency of the Pearson r in rejecting a null hypothesis. "When the assumptions and requirements underlying the proper use of the Pearson r are met, that is, when the population has a bivariate normal distribution and measurements is at least an interval scale, the r_s (rho) is 91 per cent as efficient as r in rejecting H_0."[13]

The *OCDQ* is a summated (Likert)-type equal interval scale, but the *POS*, as constructed, does not meet the interval scale requirement, but involves ordinal measurement instead. Therefore the Spearman rho, not the Pearson r, is the appropriate correlational statistic.[14]

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[12] *Ibid.*, pp. 181-186.

[13] Sidney Siegel, *Nonparametric Statistics* (New York: McGraw-Hill Book Co., 1956), p. 213. The Spearman rank correlation coefficient is discussed between pp. 202-213 in this reference with the formula being on p. 204.

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[14] *Ibid.*, p. 30.

CHAPTER IV

RESULTS

I. SPEARMAN RANK CORRELATIONS BETWEEN THE FREQUENCY OF TOTAL PRINCIPAL-TEACHER COMMUNICATIONS, THE FREQUENCY OF PRINCIPAL DOWNWARD COMMUNICATIONS TO THE FACULTY, THE FREQUENCY OF TEACHER UPWARD COMMUNICATIONS TO THE PRINCIPAL AND THE OCDQ ESPRIT MEAN SCORES.

Table III shows the results. The rho correlation between the frequency of total principal-teacher communications and the OCDQ esprit mean scores was .21; between the frequency of principal downward communications to the faculty and the OCDQ esprit mean scores, .28; and between the frequency of teacher upward communications to the principal and the OCDQ esprit mean scores .31. None of these correlations are significant at the .05 level.

Tables IV, V and VI show the raw data for these three correlations.

TABLE III

SPEARMAN RANK CORRELATIONS BETWEEN THE FREQUENCY OF TOTAL PRINCIPAL - TEACHER COMMUNICATIONS THE FREQUENCY OF PRINCIPAL DOWNWARD COMMUNICATIONS TO THE FACULTY, THE FREQUENCY OF TEACHERS UPWARD COMMUNICATIONS TO THE PRINCIPAL AND OCDQ ESPRIT MEAN SCORES

	OCDQ Esprit Mean Scores
Frequency of Total Principal-Teacher Communications	.21
Frequency of Principal Downward Communications to the Faculty	.20
Frequency of Teacher Upward Communications to the Principal	.31

None of the above rho's significant at the .05 level of significance.

TABLE IV

CORRELATION BETWEEN THE FREQUENCY OF TOTAL PRINCIPAL-TEACHER COMMUNICATIONS AND OCDQ ESPRIT MEAN SCORES

School Identification Number	Frequency of Total Principal-Teacher Communications	OCDQ Esprit Mean Scores
102	56	26
103	187	56
104	367	62
105	179	37
106	132	66
107	29	37
108	161	66
109	636	61
111	127	61
113	503	52
114	325	68
115	170	69
116	165	50
117	95	51
118	253	26
119	180	57
120	132	38
121	51	67
122	200	62
125	222	26
126	100	58
127	97	60
129	161	63
131	311	56
132	132	67
133	99	32
134	130	53
135	151	37
136	139	52
139	660	29
140	71	33
141	73	67
143	237	58
144	91	25
147	700	51
148	89	67
150	232	32
N = 37		$^{*}r_s = .21$

With df=35, r_s must be equal to or greater than .3246 at the .05 level of significance.

*N. M. Downie and R. W. Heath, *Basic Statistical Methods* (New York: Harper and Row, 1965), p. 156, pp. 206-208, p. 306.

TABLE V

CORRELATION BETWEEN THE FREQUENCY OF PRINCIPAL DOWNWARD COMMUNICATIONS TO THE FACULTY AND OCDQ ESPRIT MEAN SCORES

School Identification Number	Frequency of Principal Downward Communications	OCDQ Esprit Mean Scores
102	67	36
103	53	56
104	158	42
105	151	37
106	82	44
107	25	37
108	84	44
109	256	41
111	92	41
113	350	52
114	267	60
115	126	49
116	77	50
117	85	51
118	101	36
119	133	57
120	57	38
121	30	47
122	156	42
125	124	36
126	169	54
127	56	40
128	61	43
131	105	56
132	103	42
133	62	32
134	81	55
135	112	37
136	115	52
139	204	39
140	28	33
141	17	67
143	116	58
144	76	35
147	690	51
148	50	47
150	122	32
N = 37		*r_s = .28

With df=35, r_s must be equal to or greater than .3246 at .05 level of significance.

*N. M. Downie and R. W. Heath, Basic Statistical Methods (New York: Harper and Row, 1965), p. 156, pp. 206-208, p. 306.

TABLE VI

CORRELATION BETWEEN THE FREQUENCY OF TEACHER UPWARD COMMUNICATIONS TO THE PRINCIPAL AND OCDQ ESPRIT MEAN SCORES

School Identification Number	Frequency of Teacher Upward Communication	OCDQ Esprit Mean Scores
102	9	36
103	84	56
104	109	42
105	38	37
106	50	46
107	6	37
108	77	48
109	198	61
111	35	41
113	153	52
114	78	48
115	66	49
116	63	50
117	66	51
118	72	36
119	56	57
120	64	38
121	13	47
122	88	42
125	90	36
126	20	54
127	39	40
129	60	43
131	126	56
132	29	42
133	37	32
134	47	55
135	39	37
136	24	52
139	176	39
140	47	33
141	56	47
143	121	58
144	15	35
147	218	51
148	38	47
150	110	32
N = 37		$^*r_s = .31$

With df=35 r_s must be equal to or greater than .3246 at .05 level of significance.

*N. M. Downie and R. W. Heath, Basic Statistical Methods (New York: Harper and Row, 1965), p. 156, pp. 206-208, p. 306.

II. SPEARMAN RANK CORRELATIONS BY OPEN AND CLOSED SCHOOL CLIMATE BETWEEN THE FREQUENCY OF TOTAL PRINCIPAL-TEACHER COMMUNICATIONS AND THE OCDQ ESPRIT MEAN SCORES.

The sample yielded six open, five autonomous, three controlled, zero familiar, five paternal and eighteen closed climate schools.

Brown and Watkins in their own research both have raised some doubt about Halpin and Croft's intermediate school climate designations of controlled and familiar. Brown identified with his Minnesota sample all six categories of school climates, except the category, controlled climate.[1] Watkins with a Muscogee County School District, Georgia sample raised some doubt about the two middle school climate categories, controlled and familiar.[2]

The Brown and Watkins findings are mentioned in order to justify in the present investigation the correlations in the open and closed school climate categories only, the extremes of the Halpin and Croft school climate continuum and not the four remaining intermediate school climate categories of autonomous, controlled, familiar and paternal. This is also in keeping with the view of Halpin and Croft:

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[1] Robert J. Brown, "Identifying and Classifying Organizational Climates in Twin City Area Elementary Schools," (unpublished doctoral dissertation, University of Minnesota), *passim*.

[2] J. Foster Watkins, "The OCDQ—An Application and Some Implications," *Educational Administration Quarterly* 4:2 (Spring, 1968), 52.

> We have said that these climates have been ranked in respect to openness versus closedness. But we fully recognize how crude this ranking is. As is the case in most methods of ranking or scaling, we are much more confident about the climates described at each end of this listing than we are about those described in between.[3]

Table VII shows the results. The correlation between frequency of total principal-teacher communications and the OCDQ esprit mean scores in the six open climate schools resulted in a *rho* of -.09 and the eighteen closed climate schools in a *rho* of .27. These *rho*'s were not significant at the .05 level.

Table VIII shows the raw data for these correlations.

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[3] Andrew W. Halpin and Don B. Croft, Organizational Climate of Schools (Chicago: Midwest Administration Center, University of Chicago, 1963), p. 50.

TABLE VII

SPEARMAN RANK CORRELATIONS BY OPEN OR CLOSED SCHOOL CLIMATE BETWEEN THE FREQUENCY OF TOTAL PRINCIPAL-TEACHER COMMUNICATIONS AND THE OCDQ ESPRIT MEAN SCORES.

Open Climate Schools	$r_s = -.09$	(N = 6)
Closed Climate Schools	$r_s = .27$	(N = 18)

None of the above rho's significant at the .05 level of significance.

TABLE VIII

SPEARMAN RANK CORRELATIONS BY OPEN OR CLOSED SCHOOL CLIMATE BETWEEN THE FREQUENCY OF TOTAL OF PRINCIPAL-TEACHER COMMUNICATIONS AND THE OCDQ ESPRIT MEAN SCORES

OPEN CLIMATE SCHOOLS

School Identification Number	OCDQ Esprit Mean Scores	Total Frequency of Principal-Teacher Communications
119	57	189
126	54	189
131	56	211
134	55	138
163	58	227
167	51	709
N = 6	*r_S = -.09	

CLOSED CLIMATE SCHOOLS

School Identification Number	OCDQ Esprit Mean Scores	Total Frequency of Principal-Teacher Communications
102	36	59
103	37	179
107	37	29
108	44	161
109	41	656
111	41	127
112	52	581
116	36	253
120	38	131
125	36	222
127	40	95
128	43	161
132	47	132
133	32	99
139	38	660
141	47	73
144	35	61
150	32	222
N = 18	*r_S = .27	

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*At the .05 level of significance, r_S must be equal to or greater than .90 for an N of 5, .83 for an N of 6 and .40 for an N of 18 on a one-tailed test.

"Table of Critical Values of r_S, the Spearman Rank Correlation Coefficient" in Sidney Siegel, *Nonparametric Statistics* (New York: McGraw-Hill Book Co., 1956), p. 284.

III. SPEARMAN RANK CORRELATIONS BY OPEN OR CLOSED SCHOOL CLIMATE BETWEEN THE FREQUENCY OF PRINCIPAL DOWNWARD COMMUNICATIONS TO THE FACULTY AND THE MEAN SCORES OF CERTAIN SUBDIMENSIONS ON THE *OCDQ*.

As a result of the lack of relationships in Section I and II above and to exploit still further the sampled data, three principal and two teacher behavioral subdimensions on the *OCDQ* were correlated with principal downward communications to the faculty in the open and closed climate schools, the extreme ends of the school climate continuum. The question posed was: do any of these subdimensions by, reflecting a communicative style, relate to the actual frequency of the principal's formal communication pattern? The selected subdimensions in this respect have been defined and discussed in Chapter III and are completely defined from Halpin and Croft in Appendix C. Here no detailed definitions are therefore given, but rather brief definitions are incorporated in the rationale applied to each selected correlation. Table IX shows the correlations and Table X, the raw data.

1. If thrust by the principal is construed by a faculty as his effort to move the organization by example and is not close supervision and although the behavior is starkly task-oriented, then how does this positive form of communicative

style by the principal correlate with his formal downward communications to the faculty?

In the open climate schools, the rho was - .74 and in the closed climate schools - .14. Neither of these correlations was significant at the .05 level.

2. If production emphasis by the principal is construed by a faculty as dichotomous to thrust and is the principal's close supervision of his faculty and involves one-way communication and little feedback, then how does this negative form of communicative style by the principal correlate with his formal downward communications to the faculty?

In the open climate schools, the rho was .30 and in the closed climate schools .35. Neither of these correlations was significant at the .05 level.

3. If aloofness by the principal is construed by a faculty as formal and impersonal, nomothetic rather than idiographic, and involves his maintenance of social distance, then how this negative form of communicative style by the principal correlate with his formal downward communications to the faculty?

In the open climate schools, the rho was - .73 and the closed climate schools - .03. Neither of these correlations was significant at the .05 level.

4. *If hindrance is construed by the faculty that the principal is overburdening it with unnecessary busywork, and thus the principal's behavior is hindering rather than facilitating the faculty's work, then how does this negative form of communicative style by the principal correlate with his formal downward communications to the faculty?*

In the open climate schools, the *rho* was .33 and the closed climate schools = .11. Neither of these correlations was significant at the .05 level.

5. *If disengagement by a faculty is construed as its behavior of "going through the motions," and not serious faculty involvement in task-orientation, then how does this negative form of communicative style by the faculty relate to the principal's downward communications to this faculty?*

In the open climate schools, the *rho* was .43 and the closed climate schools .03. Neither of these correlations was significant at the .05 level.

Thus three principal subdimensions on the OCDQ, thrust, production emphasis and aloofness revealed no significant correlations with the principal's downward communications.

The fourth principal subdimension, consideration, was not considered to be a formal communicative style. In addition, two teacher subdimensions on the OCDQ, hindrance and disengagement, also revealed no significant correlations with the principal's downward communications. The two remaining teacher subdimensions, esprit and intimacy, were not considered to be formal communicative styles.

Consideration was defined by Halpin and Croft in operational terms as behavior by the principal "to treat teachers humanly [and] to try to do a little something extra for them in human terms." Again, as operationalized by Halpin and Croft, the teacher subdimension of esprit was a teacher social-needs and task-achievement subdimension belonging to the faculty and had been correlated with principal downward communications in Section I above. Intimacy, as operationalized by Halpin and Croft, was a teacher group social relations subdimension belonging to that group itself.

TABLE IX

SPEARMAN RANK CORRELATIONS BY OPEN OR CLOSED SCHOOL CLIMATE BETWEEN THE FREQUENCY OF PRINCIPAL-DOWNWARD COMMUNICATIONS TO FACULTY AND THE MEAN SCORES OF CERTAIN SUBDIMENSIONS ON THE *OCDQ*

	Open Climate Schools (N = 6)	Closed Climate Schools (N = 18)
	Frequency of Principal Downward Communication to the Faculty	Frequency of Principal Downward Communication to the Faculty
Thrust Mean Scores	$r_s = -.74$	$r_s = .14$
Production Emphasis Mean Scores	$r_s = .30$	$r_s = .35$
Aloofness Mean Scores	$r_s = -.73$	$r_s = -.03$
Hindrance Mean Scores	$r_s = .53$	$r_s = -.11$
Disengagement Mean Scores	$r_s = .43$	$r_s = .03$

None of the above rho's significant at the .05 level.

TABLE X

CORRELATION BY OPEN OR CLOSED SCHOOL CLIMATE BETWEEN THE FREQUENCY OF PRINCIPAL DOWNWARD COMMUNICATIONS TO FACULTY AND THE MEAN SCORES OF CERTAIN SUBDIMENSIONS ON THE OCDQ

OPEN CLIMATE SCHOOLS

School Identification Number	Frequency of Principal Downward Communications	Thrust Mean Scores	Production Emphasis Mean Scores	Aloofness Mean Scores	Hindrance Mean Scores	Disengagement Mean Scores
119	133	56	47	42	58	33
126	160	58	53	41	43	38
131	105	52	60	27	60	37
136	91	59	60	52	47	32
143	116	55	60	27	60	43
147	490	53	42	36	61	60
N = 6		$r_s = -.74$	$r_s = .30$	$r_s = -.73$	$r_s = .53$	$r_s = .43$

CLOSED CLIMATE SCHOOLS

School Identification Number	Frequency of Principal Downward Communications	Thrust Mean Scores	Production Emphasis Mean Scores	Aloofness Mean Scores	Hindrance Mean Scores	Disengagement Mean Scores
102	47	41	59	58	53	65
105	141	41	65	67	52	67
107	25	41	43	56	59	58
108	84	40	44	66	69	57
109	256	30	55	51	49	67
111	92	39	50	66	60	63
113	250	36	66	69	60	62
118	181	36	54	50	53	63
120	67	43	56	62	55	66
125	124	45	44	67	67	66
127	56	37	53	52	68	67

TABLE X (CONTINUED)

CLOSED CLIMATE SCHOOLS (Continued)

School Identification Number	Frequency of Principal Downward Communications	Thrust Mean Scores	Production Emphasis Mean Scores	Aloofness Mean Scores	Hindrance Mean Scores	Disengagement Mean Scores
129	61	40	42	39	60	42
132	103	40	47	51	71	66
133	62	54	51	47	60	61
139	304	41	63	45	55	42
141	17	35	44	65	61	60
144	76	38	51	51	59	62
150	122	40	52	61	56	52
N = 18		$r_s = -.14$	$r_s = .35$	$r_s = -.03$	$r_s = -.11$	$r_s = .03$

None of these rho correlations are significant at .05 level of significance on a one-tailed test. With N of 6, an r_s of .829 is needed in the open climate schools. With N of 18, an r_s of .399 is needed in the closed climate schools.

Sidney Siegel, Nonparametric Statistics (New York: McGraw-Hill Book Co., 1956), pp. 210-213 and "Table of Critical Values for r_s, the Spearman Rank Correlation Coefficient," p. 284.

IV. SPEARMAN RANK CORRELATIONS BY OPEN OR CLOSED SCHOOL CLIMATE BETWEEN THE FREQUENCY OF TEACHER UPWARD COMMUNICATIONS TO THE PRINCIPAL AND THE MEAN SCORES OF CERTAIN SUBDIMENSIONS ON THE OCDQ.

Two teacher OCDQ subdimensions, disengagement and esprit, were believed to have relationships to a faculty's own upward communications to its principal. Table XI shows these correlations and Table XII, the raw data.

1. If disengagement by a faculty is construed as behavior involving "going through the motions," but not serious faculty involvement in task-achievement, then how does this negative form of communicative style by the faculty relate to its own upward communications to the principal?

   In the open climate schools, the *rho* was .44 and the closed climate schools - .03. Neither of these correlations was significant at the .05 level.

2. If esprit is faculty morale and involves both its social as well as task-achievement needs, then how does this desirable positive attribute relate to its own upward communications to the principal?

   In the open climate schools, the *rho* was .11 and the closed climate schools .394. Neither of these correlations was significant at the .05

level, although the rho of .396 neared the desired .399 value for significance.

The remaining six subdimensions on the *OCDQ* were not viewed as having any form of correlative relationship with teacher upward communications.

TABLE 21

SPEARMAN RANK CORRELATIONS BY OPEN OR CLOSED SCHOOL CLIMATE BETWEEN THE FREQUENCY OF TEACHER UPWARD COMMUNICATIONS TO THE PRINCIPAL AND THE MEAN SCORES OF CERTAIN SUBDIMENSIONS ON THE *OCDQ*.

	Open Climate Schools (N = 6)	Closed Climate Schools (N = 18)
	Frequency of Teacher Upward Communications to the Principal	Frequency of Teacher Upward Communications to the Principal
Disengagement Mean Scores	r_s= .66	r_s= -.03
Esprit Mean Scores	r_s= .11	r_s= .396

None of the above rho's significant at .05 level of significance.

TABLE XII

CORRELATION BY OPEN OR CLOSED SCHOOL CLIMATE BETWEEN THE FREQUENCY OF TEACHER UPWARD COMMUNICATIONS TO THE PRINCIPAL AND THE MEAN SCORES OF CERTAIN SUBDIMENSIONS ON THE OCDQ

OPEN CLIMATE SCHOOLS

School Identification Number	Frequency of Teacher Upward Communications	Disengagement Mean Scores	Esprit Mean Scores
119	56	33	57
126	20	38	58
131	126	37	56
134	47	32	55
147	218	43	51
		$*r_s = .66$	$*r_s = -.83$

CLOSED CLIMATE SCHOOLS

School Identification Number	Frequency of Teacher Upward Communications	Disengagement Mean Scores	Esprit Mean Scores
102	12	45	36
105	28	47	37
107	4	50	37
108	157	57	48
109	198	47	61
111	25	65	41
113	153	62	53
118	72	63	36
120	64	66	38
127	39	67	40

TABLE XII (CONTINUED)

CLOSED CLIMATE SCHOOLS (Continued)

School Identification Number	Frequency of Teacher Upward Communications	Disengagement Mean Scores	Esprit Mean Scores
128	40	62	43
132	28	88	67
133	37	61	32
138	176	62	28
141	56	60	67
148	13	62	28
150	110	52	32
N = 18		*r_s= .11	*r_s= .28

*None of these rho correlations significant at the .05 level.

*Sidney Siegel, Nonparametric Statistics (New York: McGraw-Hill Book Co., 1956), pp. 210-213 and "Table of Critical Values for r_s, the Spearman Rank Correlation Coefficient," p. 284.

CHAPTER V

SUMMARY

Because the frequency of principal-teacher communications in the public elementary school may be a determinant in the school's organizational climate as well as its teacher esprit (morale), by Spearman correlation, the variable, frequency of principal-teacher communications, was correlated with the variable, esprit, a subdimension of A. W. Halpin and D. B. Croft's Organizational Climate Description Questionnaire (OCDQ).[1] The general hypothesis tested was that the frequency of oral and written communications between a principal and his faculty was significantly related to teacher esprit (morale). Since esprit on the OCDQ, according to Halpin and Croft, tended also to vary directly with school organizational climate, it was also conjectured that the frequency of principal-teacher communications would also reveal some significant relationships with school organizational climate.[2]

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[1] Andrew W. Halpin, Theory and Research in Administration (New York: The Macmillan Company, 1966), pp. 131-249.

[2] Ibid., p. 170.

The sample consisted of thirty-seven cooperating Ohio elementary school principals and their respective faculties, totaling 313 teachers. Frequency of principal-teacher communications was obtained through the use of a Principal's Data Sheet (PDS), with all the cooperating principals keeping identical twenty-day records on the following seven types of formal communications:

1. written principal-initiated memos.
2. written principal-initiated bulletins.
3. written teacher-initiated memos.
4. oral principal-initiated communication to faculty groups.
5. oral principal-initiated communication through individual teacher conferences.
6. oral teacher-initiated communication through individual conference with the principal.
7. oral teacher-initiated group conferences with the principal.

The PDS was designed by Dr. Charles L. Wood, University of Akron, for his 1966 doctoral dissertation obtained from the University of Iowa.[3] The entire seven categories result in the variable, frequency of principal-teacher communications, and may be further split into frequency of principal downward communications to his faculty and frequency of teacher upward communications to the principal.

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[3] Charles L. Wood, "An Analysis of the Communication of Principals and Relationship to the Satisfaction of Teachers in Selected Dependents' Schools," (Unpublished doctoral dissertation, The University of Iowa, 1966). With permission of the author.

The OCDQ identifies a school's organizational climate, which may be further labeled on a continuum as being open, autonomous, controlled, familiar, paternal or closed. Any one of these six school climate categories are determined by the eight subdimensions of the OCDQ, production emphasis, thrust, aloofness and consideration related to the principal's behavior and disengagement, hindrance, intimacy and esprit related to the faculty's behavior. The Form IV of the OCDQ used in the present investigation is a sixty-nine item summated (Likert)-type equal interval scale and is completed by a school's faculty. It thus represents a faculty's perception of the school organizational climate.

No significant relationships were discovered at the .05 level between the frequency of principal-teacher communications and teacher esprit. When frequency of principal-teacher communications were separated into frequency of principal downward communications to the faculty and frequency of teacher upward communications to the principal, it was found that neither of these sub-variables correlated with esprit.

Schools with open and closed school climates, the extreme climates on the *OCDQ*, were then singled out into separate groups. The principal behavioral sub-dimensions on the *OCDQ* in these two groups of thrust, production emphasis, and aloofness, as well as the teacher behavioral sub-dimensions of hindrance and disengagement, were correlated with frequency of principal downward communications to the faculty. Again no significant relationships were discovered between the latter variable and each of these *OCDQ* sub-dimensions. These sub-dimensions were assumed to manifest certain communicative styles with the oral and written aspects further assumed to be latent ingredients within these larger behavioral patterns.

With similar hypothesizing, frequency of teacher upward communications to the principal were correlated in the open and the closed climate schools with the teacher sub-dimensions of disengagement and esprit, and again no significant relationships were discovered.

I. BIOGRAPHICAL DATA AND SOME OBSERVATIONS IN THE OHIO SAMPLE

Table II shows in compact form the biographical data obtained on the thirty-seven elementary school principals in this sample.

Probably the most unanticipated finding in this sample was that eighteen of the thirty-seven schools had closed school climates. Early conjecturing by this investigator questioned the type of school climates the sample would reveal, believing that because the principals in the sample were cooperating participants, this would tend to produce schools with open or autonomous school climates. Instead, the converse was true. Nor do the school climate outcomes of this sample infer that a principal selected, in the passing out of the OCDQ's, to his more favored teachers, thus tending to give him on the OCDQ subdimension ratings toward the open school climate.

Would these eighteen closed climate schools, therefore, represent "troubled schools?" Or would a much larger state sample again reveal such a near fifty per cent average of closed climate schools? Or because of the school's bureaucratic nature, would another investigation reveal autocratic practices by Ohio elementary principals to a higher degree than anticipated?

An examination of the biographical data revealed one unusual factor: twenty-three of the thirty-seven principals had been in their present schools from one to five years. No further effort was made to correlate biographical data with any of the other variables in the present investigation, for Gross and Herriott have abundantly demonstrated the futility of any endeavor devoted to finding positive correlates between biographical information and a principal's leadership style.[4]

Correlating their variable, Executive Professional Leadership (EPL) of the elementary school principal, these investigators found no significant relationships ($p < .05$) between a principal's EPL and the following biographical variables: number of semester hours in undergraduate as well as graduate courses in education, and previous administrative as well as teaching experience. Previous experience in the principalship tended to give a significantly ($p < .05$) higher EPL score to the younger principal in his first principalship. Similarly, age, sex and marital status of the principal as independent variables did not correlate significantly with his EPL.

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[4] Neal Gross and Robert E. Herriott, Staff Leadership in Public Schools (New York: John Wiley and Sons, Inc., 1965), pp. 41-89.

II. CONCLUSIONS

With no significant correlational findings (p. .05) discovered between total principal-teacher communications and teacher esprit within the public elementary school, what initial conclusion can be derived from the present investigation? Perhaps principal-teacher communications may involve characteristics other than merely oral and written attributes. "Communication," said Halpin, "embraces a broader terrain than most of us attribute to it. Since language is, phylogentically, one of man's most distinctive characteristics we sometimes slip into the error of thinking that all communication must be verbal communication. To persist in this narrow view of communication is folly. ...My point, is shockingly simple: Actions speak louder than words."[5]

In Chapter II, it was noted that, according to Smith and Brown, downward communications would be positively related to group member satisfaction. If this were so, in the educational setting of this sample, the frequency of the principal's downward communications to his faculty should have correlated significantly with teacher esprit. Such was not the case. Also in Chapter II, it was noted that, according to Leavitt and Mueller, free feedback would tend to produce high group member confidence and amity, while zero feedback, in contrast, would tend to produce low confidence and hostility. In the educational setting of this sample, teacher verbal upward communications to the principal did not correlate significantly with teacher esprit.

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[5] Andrew W. Halpin, Theory and Research in Administration (New York: The Macmillan Company, 1966, p. 253.

Would, therefore, certain subdimensions on the OCDQ which may have reflected a communicative style through overt behavior reveal any significant correlations with the frequency of total principal-teacher communications, frequency of principal downward communications and frequency of teacher upward communications? Three of the four principal behavioral subdimensions, thrust, production emphasis and aloofness, as defined operationally by Halpin and Croft, seemed to suggest overt communicative behavior by the principal. The fourth subdimension, consideration, as operationalized by Halpin and Croft, manifested a social-needs dimension of the faculty rather than a form of overt communicative behavior. In other words, the higher the principal's production emphasis score, the higher the frequency of his downward communications; the higher his thrust score, the higher the frequency of his downward communications; and the higher his aloofness score, the lower the frequency of his downward communications.

As indicated in Chapter III, some doubt about the intermediate climate designations of controlled and familiar had been raised by Brown and Watkins in their own research with the OCDQ. Six open, five autonomous, three controlled, zero familiar, five paternal and eighteen closed climate schools were identified in the sample. Only the extreme climates of the Halpin and Croft school climate continuum were, therefore, selected for the above correlations. Neither in the open nor the closed climate schools did the frequency of principal downward communications to his faculty, oral and written, correlate significantly with his production emphasis, thrust, and aloofness scores. In short, in the open as well as closed climate schools, no significant correlations were discovered between the principal's probable overt communicative behaviors of production emphasis, thrust, and aloofness and the total number of oral and written communications he himself initiated to his faculty.

With similar conjecturing, two of the four teacher subdimensions, hindrance and disengagement, as operationalized by Halpin and Croft, were considered to manifest overt communicative behavior by the faculty toward the principal's downward communications. Thus, the higher the teachers' hindrance score, the higher the frequency of the principal's downward communications and the higher the teachers' disengagement score, the lower the frequency of the principal downward communications. The other two subdimensions, esprit and intimacy, on the other hand, in this instance were not viewed as communicative styles by the faculty toward the principal. Again, no significant correlations were discovered between these faculty response communicative behaviors of hindrance and disengagement and the total number of oral and written communications the principal initiated to his faculty in the open and closed climate schools.

The frequency of teacher upward communications in the open and closed climate schools were also correlated with two of the four teacher subdimensions on the OCDQ, disengagement and esprit. Disengagement, as operationalized by Halpin and Croft, was viewed this time as an overt faculty communicative behavior in its own effort to communicate with the principal. In other words, the higher a faculty's disengagement score, the lower the faculty's frequency of upward communications to its principal. With respect to esprit, the higher a faculty's esprit score, the higher its frequency of upward communications to the faculty. The third teacher subdimension, intimacy, as operationalized by Halpin and Croft, manifested a social-needs dimension of the faculty rather than a form of overt communicative behavior. The fourth teacher subdimension, hindrance, was a subdimension manifesting behavior by the principal as perceived by his faculty and thus was not viewed as a form of overt communicative behavior by the faculty itself. Again, no significant correlations were discovered between the faculty's own overt communicative behavior of disengagement and the frequency of its own upward communications to the principal nor between its own esprit and the frequency of its own upward communications to its principal in the open and closed climate schools.

In summary, if administrative behavior is in a large measure communicative behavior related to organizational morale or organizational climate, there is nothing in this educational setting of the elementary school with its principal and faculty, at least with this sample, to so support such a generalization. "If we are looking for laws of human behavior," said DiRenzo, "then our concepts must be more than sets of operation, or mathematical formulas, or of logical realities, or of sheer descriptions. They must have empirical, and not merely rational implications."[6]

That principal-teacher communications, upward or downward or together, did not correlate with certain selected subdimensions of the OCDQ, in this sample at least, has been demonstrated empirically. In short, from the results of this investigation, the frequency of message-exchange, oral and written, does not relate to certain behavioral patterns on the OCDQ which among themselves in interaction, however, do contribute to the system state variable, organizational climate as demonstrated empirically in the work of Halpin and Croft.

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[6] Gordon J. DiRenzo, Concepts, Theory, and Explanation in the Behavioral Sciences (New York: Random House, 1966), p. 248.

III. RECOMMENDATIONS

Because of the lack of findings in this investigation some comments about its limitations are in order.

1. As noted in Chapter III, the thirty-seven elementary schools in the sample were categorized into twenty-one city, thirteen county, and three exempted village schools. The eight city, six county, and one exempted village school principals who initially offered to cooperate and then failed to reply to a tracer letter and to return the instruments may have biased the sample. Another possible source of bias may have come from the principals who may also have been teacher-principals, especially in the small faculty schools. A third source of bias may have come from the procedure employed whereby each principal selected the teachers who were to complete the OCDQ, although each principal was asked to select randomly from his faculty these teachers. Thus the

sample may not after all have been truly representative and a future researcher should restrict his sample to a geographical area less than the entire state and better control the type of elementary school defined in his population. With the latter such factors as whether a principal is a full-time principal or teacher-principal may be a determinant. In addition, a future sample may be restricted to either city, county or exempted village schools exclusively with student school population also controlled.

2. This effort in part had been a quantative study through the variable frequency of principal-teacher communications. It did, however, have a qualitative aspect for it tried to relate this quantitative variable to a qualitative _system state_ variable, organizational climate. In addition, the subdimension, teacher esprit, on the _OCDQ_ also had a qualitative connotation. Why? Because a qualitative finding can only be obtained through some form of quantification in research:

> The expression "qualitative variable" has sometimes been applied to dichotomies. Such usage reflects a somewhat distorted notion of what variables are. _They are always quantifiable or they are not variables._ If X can take on only two values, 1 and 0, these are still values and the variable varies. If, however, we take two objects, a and b, grossly and genotypically different, then we have no adequate basis for quantification. Thus they might be called qualitatively different. Even in this case, we could quantify a and b simply

> by considering a to be one class A and
> b not to be of the class A, or non-A and
> assign 1's and 0's again.[7]

In short, research, it seems, can only arrive at a qualitative finding through some quantitative approach. Therefore, there is no such a thing as a "qualitative variable" ipso facto. Therefore, it is held, the OCDQ with its six school climate identifications as well as all of its eight subdimensions in its construction arrives at some qualitative notions, but these are only possible through operationalized and measured concepts. In short, through quantification.

Thus, one of the variables in this investigation, frequency of principal-teacher communications, is a pure quantitative variable, whereas the system state variable, school organizational climate and its eight subdimensions, as operationalized by Halpin and Croft, arrive at a qualitative determination, however, because of the necessities of research procedure, through quantification.

3. Any future research endeavors, by considering the experiences gained in this investigation, may result in a replication with another sample to confirm or to deny the results herein. Consideration should be given to the comments about sampling technique used in this investigation.

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[7] Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1964), pp. 22-23.

Underlined for emphasis

4. If another Ohio sample in the future should reveal another such high percentage of closed climate schools as this investigation disclosed, then future research may well be directed toward finding some explanations for such a high percentage of closed climate schools.

5. Other research might be directed toward a content analysis of the principal's communications and how the content of what he conveys may relate to the principal behavioral patterns of thrust, production emphasis, consideration, and aloofness on the OCDQ. With respect to aloofness, is there a relationship between this variable and social distance?

6. In a similar manner, a content analysis of the faculty's communications to its principal might have some significant relationships with its own behavioral patterns of esprit, intimacy, hindrance, and disengagement on the OCDQ. In short, how a principal and faculty say they will behave and do actually behave, as explained by the empirically-determined sub-variables of school organizational climate, may unlock a possible avenue to the principal-teacher communications phenomenon.

BIBLIOGRAPHY

A. BOOKS AND PAMPHLETS

Barnard, Chester I. *The Functions of the Executive.* Cambridge, Massachusetts: Harvard University Press, 1938.

Becker, Howard and Alvin Boskoff (eds.). *Modern Sociological Theory.* New York: Holt, Rinehart and Winston, 1966.

Brown, Robert J. *Organizational Climate of Elementary Schools.* Minneapolis, Minnesota: Educational Research and Development Council of the Twin Cities Metropolitan Area, Incorporated, University of Minnesota, 1965.

Culbertson, Jack A. and Stephen P. Hencley (eds.). *Educational Research: New Perspectives.* Danville, Illinois: Interstate Printers and Publishers, Incorporated, 1963.

DiRenzo, Gordon J. *Concepts, Theory, and Explanation in the Behavioral Sciences.* New York: Random House, 1966.

Downie, N. M. and R. W. Heath. *Basic Statistical Methods.* New York: Harper and Row, Publishers, 1965.

Griffiths, Daniel E. *Administrative Theory.* New York: Appleton-Century-Crofts, Incorporated, 1959.

Gross, Neal and Robert E. Herriott. *Staff Leadership in Public Schools.* New York: John Wiley and Sons, Incorporated, 1965.

Halpin, Andrew W. *Administrative Theory in Education.* New York: The Macmillan Company, 1958.

______. *Theory and Research in Administration.* New York: The Macmillan Company, 1966.

______ and Don B. Croft. *The Organizational Climate of Schools.* Chicago: The Midwest Administration Center, University of Chicago, 1963.

Hemphill, John K., Daniel E. Griffiths and Norman Frederickson. *Administrative Performance and Personality*. New York: Teachers College, Columbia University, 1962.

Hills, Jean R. *The Concept of System*. Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1967.

Jenkins, Kathleen (comp.). *Educational Directory: State of Ohio, School Year, 1966-67*. Columbus: Ohio State Department of Education, 1968.

March, James G. (ed.). *Handbook of Organizations*. Chicago: Rand McNally and Company, 1965.

Sargent, James C. *Organizational Climate of High Schools*. Minneapolis, Minnesota: Educational Research and Development Council for the Twin Cities Metropolitan Area, Incorporated, The University of Minnesota, 1967.

Siegel, Sidney. *Nonparametric Statistics for the Behavioral Sciences*. New York: McGraw-Hill Book Company, Incorporated, 1956.

Sixty-Third Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1964.

B. ARTICLES AND PERIODICALS

Bidwell, Charles E. "The Administrative Role and Satisfaction in Teaching," *Journal of Educational Sociology*, 29 (September, 1955), 41-47.

Brown, Alan F. "Reactions to Leadership," *Educational Administration Quarterly*, 3:1 (Winter, 1967), 62-73.

Dorsey, John T., Jr. "A Communication Model for Administration," *Administrative Science Quarterly*, II (December, 1957), 307-322.

Getzels, Jacob W. and Egon G. Guba. "Social Behavior and the Administrative Process," *The School Review*, LXV (Winter, 1957), 423-441.

Guetzkow, H. and William R. Dill. "Factors in the Organizational Development of Task-Oriented Groups," *Sociometry*, 20 (1957), 175-204.

Lachman, Roy. "The Model in Theory Construction," *Psychological Review*, 67 (1960), 113-129.

Leavitt, Harold J. "Some Effects of Certain Communication Patterns on Group Performance," *Journal of Abnormal and Social Psychology*, 46 (1951), 38-50.

Shaw, M. E. "Some Effects of Unequal Distribution of Information Upon Group Performance in Various Communication Nets," *Journal of Abnormal and Social Psychology* 49 (1954), 547-553.

Smith, Clagett and Michael Brown. "Communication Structure and Control Structure in a Voluntary Association," *Sociometry*, 27 (December, 1964), 449-455.

Watkins, Foster J. "The *OCDQ* - An Application and Some Implications," *Educational Administration Quarterly* 4:2 (Spring, 1968), 46-60.

C. UNPUBLISHED MATERIALS

Anderson, Donald P. "Relationship Between Organizational Climate of Elementary Schools and Personal Variables of Principals." Unpublished doctoral dissertation, University of Minnesota, Minneapolis, 1964.

Brown, Robert J. "Identifying and Classifying Organizational Climate in Twin City Area Elementary Schools." Unpublished doctoral dissertation, University of Minnesota, Minneapolis, 1964.

Hood, Evans C. "A Study of Congruence of Perceptions Concerning Factors Which Affect Teacher Morale." Unpublished doctoral dissertation, East Texas State University, Commerce, 1965.

Myers, Michael J. "An Analysis of Selected Administrative Communications in a School System: With Emphasis on the Communicative Modulation Effect." Unpublished doctoral dissertation, New York University, New York City, 1966.

Pritchard, James L. "Validation of the Organizational Climate Description Questionnaire Against Non-Faculty School Personnel." Unpublished doctoral dissertation, Stanford University, Stanford, California, 1966.

Sargent, James C. "An Analysis of Principal and Staff Perceptions of High School Organizational Climate." Unpublished doctoral dissertation, The University of Minnesota, Minneapolis, Minnesota, 1966.

Smith, David C. "Relationships Between External Variables and the Organizational Climate Description Questionnaire." Unpublished doctoral dissertation, Northwestern University, Evanston, Illinois, 1966.

Wood, Charles L. "An Analysis of the Communication of Principals and Relationship to the Satisfaction of Teachers in Selected Dependents Schools." Unpublished doctoral dissertation, The University of Iowa, Iowa City, Iowa, 1966.

APPENDIX A

Letter of Authorization for
Use of the OCDQ

THE MACMILLAN COMPANY
A SUBSIDIARY OF CROWELL COLLIER AND MACMILLAN, INC.
866 Third Avenue, New York, N.Y. 10022

Date: November 9, 1967

Mr. Carl Helwig
11376 Glamer Drive
Cleveland, Ohio 44130

Dear Mr. Helwig: Re: Your letter of November 3, 1967

You may have our permission to use, in the English language only, material in the manner and for the purpose specified in your letter from the following book(s):

ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE by Dr. Andrew Halpin

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Agnes Moran

(Mrs.) Agnes Moran
Permissions Department

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APPENDIX B

The Organizational Climate
Description Questionnaire,
Form IV

THE ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE, FROM IV[1]

Please indicate answer by use of letter in space provided.

rarely occurs a   often occurs c

sometimes occurs b   very frequently occurs d

1. Teachers' closest friends are other faculty members at this school. 1. ___
2. The mannerisms of teachers at this school are annoying. 2. ___
3. Teachers spend time after school with students who have individual problems. 3. ___
4. Instructions for the operation of teaching aids are available. 4. ___
5. Teachers invite other faculty members to visit them at home. 5. ___
6. There is a minority group of teachers who always oppose the majority. 6. ___
7. Extra books are available for classroom use. 7. ___
8. Sufficient time is given to prepare administrative reports. 8. ___
9. Teachers know the family background of other faculty members. 9. ___
10. Teachers exert group pressure on nonconforming faculty members. 10. ___
11. In faculty meetings, there is the feeling of "let's get things done." 11. ___
12. Administrative paper work is burdensome at this school. 12. ___
13. Teachers talk about their personal life to other faculty members. 13. ___
14. Teachers seek special favors from the principal. 14. ___
15. School supplies are readily available for use in classwork. 15. ___
16. Student progress reports require too much work. 16. ___
17. Teachers have fun socializing together during school time. 17. ___
18. Teachers interrupt other faculty members who are talking in staff meetings. 18. ___
19. Most of the teachers here accept the faults of their colleagues. 19. ___

rarely occurs a   often occurs c

sometimes occurs b   very frequently occurs d

20. Teachers have too many committee requirements. 20. ___
21. There is considerable laughter when teachers gather informally. 21. ___
22. Teachers ask nonsensical questions in faculty meetings. 22. ___
23. Custodial service is available when needed. 23. ___
24. Routine duties interfere with the job of teaching. 24. ___
25. Teachers prepare administrative reports by themselves. 25. ___
26. Teachers ramble when they talk in faculty meetings. 26. ___
27. Teachers at this school show much school spirit. 27. ___
28. The principal goes out of his way to help teachers. 28. ___
29. The principal helps teachers solve personal problems. 29. ___
30. Teachers at this school stay by themselves. 30. ___
31. The teachers accomplish their work with great vim, vigor, and pleasure. 31. ___
32. The principal sets an example by working hard himself. 32. ___
33. The principal does personal favors for teachers. 33. ___
34. Teachers eat lunch by themselves in their own classrooms. 34. ___
35. The morale of the teachers is high. 35. ___
36. The principal uses constructive criticism. 36. ___
37. The principal stays after school to help teachers finish their work. 37. ___
38. Teachers socialize together in small select groups. 38. ___
39. The principal makes all class-scheduling decisions. 39. ___
40. Teachers are contacted by the principal each day. 40. ___
41. The principal is well prepared when he speaks at school functions. 41. ___
42. The principal helps staff members settle minor differences. 42. ___
43. The principal schedules the work for the teachers. 43. ___
44. Teachers leave the grounds during the school day. 44. ___

rarely occurs _a_ often occurs _c_

sometimes occurs _b_ very frequently occurs _d_

45. The principal criticizes a specific act rather than a staff member. 45. ___
46. Teachers help select which courses will be taught. 46. ___
47. The principal corrects teachers' mistakes. 47. ___
48. The principal talks a great deal. 48. ___
49. The principal explains his reasons for criticism to teachers. 49. ___
50. The principal tries to get better salaries for teachers. 50. ___
51. Extra duty for teachers is posted conspicuously. 51. ___
52. The rules set by the principal are never questioned. 52. ___
53. The principal looks out for the personal welfare of teachers. 53. ___
54. School secretarial service is available for teachers' use. 54. ___
55. The principal runs the faculty meeting like a business conference. 55. ___
56. The principal is in the building before teachers arrive. 56. ___
57. Teachers work together preparing administrative reports. 57. ___
58. Faculty meetings are organized according to a tight agenda. 58. ___
59. Faculty meetings are mainly principal-report meetings. 59. ___
60. The principal tells teachers of new ideas he has run across. 60. ___
61. Teachers talk about leaving the school system. 61. ___
62. The principal checks the subject-matter ability of teachers. 62. ___
63. The principal is easy to understand. 63. ___
64. Teachers are informed of the results of a supervisor's visit. 64. ___
65. Grading practices are standardized at this school. 65. ___
66. The principal insures that teachers work to their full capacity. 66. ___

rarely occurs a   often occurs c

sometimes occurs b   very frequently occurs d

67. Teachers leave the building as soon as possible at day's end. 67. ___

68. The principal clarifies wrong ideas a teacher may have. 68. ___

69. Schedule changes are posted conspicuously at this school. 69. ___

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[1] Andrew W. Halpin. *Theory and Research in Administration*. New York: The Macmillan Company, 1966. With permission of the publisher.

APPENDIX C

The Six Prototypic Climate
Profiles and the Eight
Subdimensions of the OCDQ

THE SIX PROTOTYPIC PROFILES OF THE OCDQ

THE OPEN CLIMATE

The Open Climate depicts a situation in which the members enjoy extremely high Esprit. The teachers work well together without bickering and griping (low Disengagement). They are not burdened by mountains of busywork or by routine reports; the principal's policies facilitate the teachers' accomplishment of their tasks (low Hindrance). On the whole, the group apparently feel no need for an extremely high degree of Intimacy. The teachers obtain considerable job satisfaction, and are sufficiently motivated to overcome difficulties and frustrations. They possess the incentive to work things out and to keep the organization "moving." Furthermore, the teachers are proud to be associated with their school.

The behavior of the principal represents an appropriate integration between his own personality and the role he is required to play as principal. In this respect his behavior can be viewed as genuine. Not only does he set an example by working hard himself (high Thrust) but, depending upon the situation, he can either criticize the actions of teachers or go out of his way to help a teacher (high Consideration). He possesses the personal flexibility to be genuine whether he be required to control and direct the activities of others or to show compassion in satisfying the social needs of individual teachers. He has integrity in that he is "all of a piece" and therefore can function well in either situation. He is not *aloof*, nor are the rules and procedures which he sets up inflexible and impersonal. Nonetheless, the rules and regulations that he adheres to provide him with subtle direction and control for the teachers. He does not have to *emphasize production*; nor does he need to monitor the teachers' activities closely, because the teachers do, indeed, produce easily and freely. He does not do all the work himself because he has the ability to let appropriate leadership acts emerge from the teachers (low Production Emphasis). Withal, he is in full control of the situation, and he clearly provides leadership for the staff.

THE AUTONOMOUS CLIMATE

The distinguishing feature of this Organizational Climate is the almost complete freedom that the principal gives to teachers to provide their own structures-for-interaction so that they can find ways within the group for satisfying their social needs. As one might surmise, the scores lean slightly more toward social-needs satisfaction than toward task-achievement (relatively high scores on Esprit and Intimacy).

When the teachers are together in a task-oriented situation they are engaged in their work; they achieve their goals easily and quickly (low Disengagement). There are few minority pressure groups, but whatever stratification does exist among the group members does not prevent the group as a whole from working well together. The essential point is that the teachers do work well together and accomplish the tasks of the organization.

The teachers are not hindered by administrative paper work, and they do not gripe about the reports that they are required to submit. The principal has set up procedures and regulations to facilitate the teachers' task. A teacher does not have to run to the principal every time he needs supplies, books, projectors, and so on; adequate controls have been established to relieve the principal as well as the teachers of these details (low Hindrance). The morale of the teachers is high, but not as high as in the Open Climate. The high morale probably stems largely from the social-needs satisfaction which the teachers receive. (Esprit would probably be higher if greater task-accomplishment also occured with the organization.)

The principal remains aloof from the teachers, for he runs the organization in a businesslike and a rather impersonal manner (high Aloofness). His leadership style favors the establishment of procedures and regulations which provide guidelines that the teachers can follow; he does not personally check to see that things are getting done. He does not force people to produce, nor does he say that "we should be working harder." Instead he appears satisfied to let the teachers work at their own speed; he monitors their activities very little (low Production Emphasis). On the whole, he is considerate, and he attempts to satisfy the social needs of the teachers as well as most principals do (average Consideration).

The principal provides Thrust for the organization by setting an example and by working hard himself. He has the personal flexibility both to maintain control and to look out for the personal welfare of the teachers. He is genuine and flexible, but his range of administrative behavior, as compared to that of the principal in the Open Climate, is somewhat restricted.

THE CONTROLLED CLIMATE

The Controlled Climate is marked, above everything else, by a press for achievement at the expense of social-needs satisfaction. Everyone works hard, and there is little time for friendly relations with others or for deviation from established controls and directives. This climate is over-weighed toward task-achievement and away from social-needs satisfaction. Nonetheless, since morale is high (Esprit), this climate can be classified as more Opened than Closed.

The teachers are completely engaged in the task. They do not bicker, find fault, or differ with the principal's directives. They are there to get the job done, and they expect to be told personally just how to do it (low Disengagement). There is an excessive amount of paper work, routine reports, busy work, and general Hindrance which get in the way of the teachers' task-accomplishment. Few procedures have been set up to facilitate their work; in fact, paper work seems to be used to keep them busy (high Hindrance). Accordingly, theachers have little time to establish very friendly social relations with each other, and there is little feeling of camaraderie (low Intimacy). Teachers ordinarily work by themselves and are impersonal with each other. In fact, social isolation is common; there are few genuinely warm relations among the teachers. Esprit, however, is slightly above average. We infer that the job satisfaction found in this climate results primarily from task-accomplishment, not from social-needs satisfaction.

The principal is described as dominating and directive; he allows little flexibility within the organization, and he insists that everything be done "his" way (high Production Emphasis). He is somewhat aloof; he prefers to publish directives, to indicate how each procedure is to be followed. These directives, of course, are impersonal and are used to standardize the way in which teachers accomplish certain tasks. Essentially, the principal says, "My way of doing it is best and to hell with the way people feel." Means and ends have already been determined; the principal becomes dogmatic when members of the group do not conform to his views. He cares little about how people feel, the important thing is to get the job done, and in his way. Accordingly, he does not seek to satisfy the group's social needs (low Consideration). Nevertheless, he is trying to move the organization by working hard (average Thrust), and he personally sees to it that everything runs properly. He delegates few responsibilities; leadership acts emanate chiefly from himself, rather than from the group. (Surprisingly, it seems that many school faculties actually respond well to this type of militant behavior and apparently do obtain considerable job satisfaction within this type of climate.)

THE FAMILIAR CLIMATE

The main feature of this climate is the conspicuously friendly manner of both the principal and the teachers. Social-needs satisfaction is extremely high, while, contrari-wise, little is done to control or direct the group's activities toward goal achievement.

The teachers are disengaged and accomplish little in a task-oriented situation, primarily because the principal exerts little control in directing their activities. Also, there are too many people trying to tell others how things should be done (high Disengagement). The principal does not burden the teachers with routine reports; in fact, he makes it as easy as possible for them to work. Procedural helps are available (low Hindrance). The teachers have established personal friendships among themselves, and socially, at least, everyone is part of a big happy family (high Intimacy). Morale, or job satisfaction, is average, but it stems primarily from social-needs satisfaction. In short, the Esprit that is found in this climate is one-sided in that it stems almost entirely from social-needs satisfaction.

The behavioral theme of the principal is, essentially, "let's all be a nice happy family;" he evidently is reluctant to be anything other than considerate, lest he may, in his estimation, injure the "happy family" feeling (high Consideration). He wants everybody to know that he, too, is one of the group, that he is in no way different from anybody else. Yet his abdication of social control is accompanied, ironically enough, by high Disengagement on the part of the group.

The principal is not aloof and not impersonal and official in his manner. Few rules and regulations are established as guides to suggest to the teachers how things "should be done" (low Aloofness). The principal does not emphasize production, nor does he do much personally to insure that the teachers are performing their tasks correctly. No one works to full capacity, yet no one is ever "wrong;" also, the actions of members--at least in respect to task accomplishment--are not criticized (low Production Emphasis). In short, little is done either by direct or by indirect means to evaluate or direct the activities of the teachers. However, teachers do attribute Thrust to the Principal. But, in this context, this probably means that they regard him as a "good guy" who is interested in their welfare and who "looks out for them."

THE PATERNAL CLIMATE

The Paternal Climate is characterized by the ineffective attempts of the principal to control the teachers as well as to satisfy their social needs. In our judgment, his behavior is nongenuine and is perceived by the teachers as nonmotivating. This climate is, of course, a partly Closed one.

The teachers do not work well together, they are split into factions. Group maintenance has not been established because of the principal's inability to control the activities of the teachers (high Disengagement). Few Hindrances burden the teachers in the form of routine reports, administrative duties, and committee requirements, mainly because the principal does a great deal of this busywork himself (low Hindrance). The teachers do not enjoy friendly relationships with each other (low Intimacy). Essentially, the teachers have given up trying; they let the principal take care of things as best he can. Obviously, low Esprit results when the teachers obtain inadequate satisfaction in respect to both task-accomplishment and social needs.

The principal, on the other hand, is the very opposite of aloof, he is everywhere at once, checking, monitoring, and telling people how to do things. In fact, he is so non-aloof that he becomes intrusive. He *must* know everything that is going on. He is always emphasizing all the things that *should* be done (Production Emphasis), but somehow nothing *does* get done. The principal sets up such items as schedules and class changes, personally; he does not let the teachers perform any of these activities. His view is that "Daddy knows best."

The school and his duties within it are the principal's main interest in life; he derives only minimal social-needs satisfaction outside his professional role. He is considerate, but his Consideration appears to be a form of seductive oversolicitousness rather than a genuine concern for the social needs of others. In a sense, he uses this Consideration behavior to satisfy his own social-needs. Although he preserves an average degree of Thrust, as evidenced by his attempts to move the organization, he nonetheless fails to motivate the teachers, primarily because he, as a human being, does not provide an example, or an ideal, which the teachers care to emulate.

THE CLOSED CLIMATE

The Closed Climate marks a situation in which the group members obtain little satisfaction in respect to either task-achievement or social needs. In short, the principal is ineffective in directing the activities of the teachers; at the same time he is not inclined to look out for their personal welfare. This climate is the most closed and the least genuine climate that we have identified.

The teachers are disengaged and do not work well together; consequently, group achievement is minimal (High Disengagement). To secure some sense of achievement, the major outlet for the teachers is to complete a variety of reports and to attend to a host of "housekeeping" duties. The principal does not facilitate the task-accomplishment of the teachers (High Hindrance). Esprit is at a nadir, reflecting low job satisfaction in respect to both job satisfaction and social-needs satisfaction. The salient bright spot that appears to keep the teachers in the school is that they do obtain satisfaction from their friendly relations with other teachers (average Intimacy). (We would speculate that the turnover rate for teachers in this climate would be very high unless, of course, the teachers are too old to move readily to another job, or have been "locked into the system" by the attractions of a retirement system.)

The principal is highly aloof and impersonal in controlling and directing the activities of the teachers (high Aloofness). He emphasizes production and frequently says that "we should work harder." He sets up rules and regulations about how things should be done, and these rules are usually arbitrary (high Production Emphasis). But his words are hollow, because he, himself, possesses little Thrust and he does not motivate the teachers by setting a good personal example. Essentially, what he says and what he does are two different things. For this reason, he is not genuine in his actions. He is not concerned with the social needs of teachers; in fact, he can be depicted as inconsiderate (low Consideration). His cry of "let's work harder" actually means "you work harder." He expects everyone else to take the initiative, yet he does not give them the freedom required to perform whatever leadership acts are necessary. Moreover, he, himself, does not provide adequate leadership for the group. For this reason the teachers view him as not genuine; indeed, they regard him as a "phony." This climate characterizes an organization for which the best prescription is radical surgery.

The eight subdimensions of organizational climate have been completely described by Halpin and Croft as follows.

TEACHERS' BEHAVIOR

> Disengagement refers to the teachers' tendency to be "not with it." This dimension describes a group which is "going through the motions," a group that is "not in gear" with respect to the task at hand. It corresponds to the more general concept of anomie as first described by Durkheim. In short, this subtest focuses upon the teachers' behavior in a task-oriented situation.
>
> Hindrance refers to the teachers' feeling that the principal burdens them with routine duties, committee demands, and other requirements which the teachers construe as unnecessary "busywork." The teachers perceive that the principal is hindering rather than facilitating their work.

Esprit refers to morale. The teachers feel that their social needs are being satisfied, and that they are, at the same time, enjoying a sense of accomplishment in their job.

Intimacy refers to the teachers' enjoyment of friendly relations with each other. This dimension describes a social-needs satisfaction which is not necessarily associated with task-accomplishment.

PRINCIPAL'S BEHAVIOR

Aloofness refers to behavior by the principal which is characterized as formal and impersonal. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face-to-face situation. His behavior, in brief, is universalistic rather than particularistic; nomothetic rather than idiosyncratic. To maintain this style, he keeps himself--at least, "emotionally"--at a distance from his staff.

Production Emphasis refers to behavior by the principal which is characterized by the close supervision of the staff. He is highly directive and plays the role of a "straw boss." His communication tends to go in only one direction, and he is not sensitive to feedback from the staff.

Thrust refers to behavior by the principal which is characterized by his evident effort in trying to "move the organization." Thrust behavior is marked not by close supervision, but by the principal's attempt to motivate the teachers through the example which he personally sets. Apparently, because he does not ask the teachers to give of themselves any more than he willingly gives of himself, his behavior, though starkly task-oriented, is nonetheless viewed favorably by the teachers.

Consideration refers to behavior by the principal which is characterized by an inclination to treat the teachers "humanely," to try to do a little something extra for them in human terms.

Andrew W. Halpin, Theory and Research in Administration. New York: The Macmillan Co., 1966, pp. 174-181 and pp. 150-151.

APPENDIX D

Items That Compose the *Four Teacher* and the Four Principal Subdimensions of the OCDQ

ITEMS THAT COMPOSE FOUR SUBTESTS OF THE TEACHERS BEHAVIOR

1. Disengagement

1.*The mannerisms of teachers at this school are annoying.
2. There is a minority group of teachers who always oppose the majority.
3. Teachers exert group pressure on nonconforming faculty members.
4. Teachers seek special favors from the principal.
5. Teachers interrupt other faculty members who are talking in staff meetings.
6. Teachers ask nonsensical questions in faculty meetings.
7. Teachers ramble when they talk in faculty meetings.
8. Teachers at this school stay by themselves.
9. Teachers talk about leaving the school system.
10. Teachers socialize together in small select groups.

2. Hindrance

11. Routine duties interfere with the job of teaching.
12. Teachers have too many committee requirements.
13. Student progress reports require too much work.
14. Administrative paper work is burdensome at this school.
15. Sufficient time is given to prepare administrative reports.**
16. Instructions for the operation of teaching aids are available.**

3. Esprit

17. The morale of the teachers is high.
18. The teachers accomplish their work with great vim, vigor, and pleasure.
19. Teachers at this school show much school spirit.
20. Custodial service is available when needed.
21. Most of the teachers here accept the faults of their colleagues.
22. School supplies are readily available for use in classwork.

23. There is considerable laughter when teachers gather informally.
24. In faculty meetings, there is the feeling of "let's get things done."
25. Extra books are available for classroom use.
26. Teachers spend time after school with students who have individual problems.

4. Intimacy

27. Teachers' closest friends are other faculty members at this school.
28. Teachers invite other faculty members to visit them at home.
29. Teachers know the family background of other faculty members.
30. Teachers talk about their personal life to other faculty members.
31. Teachers have fun socializing together during school time.
32. Teachers work together preparing administrative reports.
33. Teachers prepare administrative reports by themselves.**

ITEMS THAT COMPOSE FOUR SUBTESTS OF THE PRINCIPAL'S BEHAVIOR

1. Aloofness

34.*Faculty meetings are organized according to a tight agenda.
35. Faculty meetings are mainly principal-report meetings.
36. The principal runs the faculty meeting like a business conference.
37. Teachers leave the grounds during the school day.
38. Teachers eat lunch by themselves in their own classrooms.
39. The rules set by the principal are never questioned.
40. Teachers are contacted by the principal each day.
41. School secretarial service is available for teachers' use.**
42. Teachers are informed of the results of a supervisor's visit.**

2. Production Emphasis

43. The principal makes all class scheduling decisions.
44. The principal schedules the work for the teachers.
45. The principal checks the subject-matter ability of teachers.
46. The principal corrects teachers' mistakes.
47. The principal insures that teachers work to their full capacity.
48. Extra duty for teachers is posted conspicuously.
49. The principal talks a great deal.

3. Thrust

50. The principal goes out of his way to help teachers.
51. The principal sets an example by working hard himself.
52. The principal uses constructive criticism.
53. The principal is well prepared when he speaks at school functions.
54. The principal explains his reasons for criticism to teachers.
55. The principal looks out for the personal welfare of teachers.
56. The principal is in the building before the teachers arrive.
57. The principal tells teachers of new ideas he has run across.
58. The principal is easy to understand.

4. Consideration

59. The principal helps teachers solve personal problems.
60. The principal does personal favors for teachers.
61. The principal stays after school to help teachers finish their work.
62. The principal helps staff members settle minor differences.
63. Teachers help select which courses will be taught.

14. The principal tries to get better salaries for teachers.

*These numbers are used solely to list the items here by subtest. The numbers do not correspond to the sequence in which the items actually appear in Form IV.

**Scored negatively

Andrew W. Halpin, *Theory and Research in Administration*, (New York: The Macmillan Company, 1966). With permission.

APPENDIX E

The Principal's Data Sheet

PRINCIPAL'S DATA SHEET[1]

RETURN THESE PAGES IN THE SELF-ADDRESSED ENVELOPE

QUESTIONNAIRE ITEMS

NUMBER OF
COMMUNICATIONS

1. Written principal-initiated memos to faculty members (short written informal notes to teachers)

Coordination of school program ______
Building and room maintenance ______
Curriculum Development ______
Instructional materials ______
Parental conference ______
Professional organizations ______
Student affairs (other than discipline) ______
Student discipline ______
Teaching assignment ______
Testing program ______
Other ______
Total ______

2. Written principal-initiated bulletins to faculty members (Duplicated materials prepared by the principal distributed to groups or to all faculty members)

Coordination of school program ______
Building and room maintenance ______
Curriculum development ______
Instructional materials ______
Parental conference ______
Professional organization ______
Student affairs (other than discipline) ______
Student discipline ______
Teaching assignment ______
Testing program ______
Other ______
Total ______

3. Written teacher-initiated memos to the principal (short written informal notes from teachers)

Coordination of school program ______
Building and room maintenance ______
Curriculum development ______
Instructional materials ______
Parental conference ______
Professional organization ______
Student affairs (other than discipline) ______
Student discipline ______
Teacher assignment ______
Testing program ______
Other ______
Total ______

4. Oral principal-initiated communication to faculty groups (include all but communications of greetings.)

Coordination of school program ______
Building and room maintenance ______
Curriculum development ______
Instructional materials ______
Parental conference ______
Professional organization ______
Student affairs (other than discipline) ______
Student discipline ______
Teaching assignment ______
Testing program ______
Other ______
Total ______

5. Oral principal-initiated communication through individual teacher conferences (include all conferences whether planned or unplanned.)

Coordination of school program ______
Building and room maintenance ______
Curriculum development ______
Instructional materials ______
Parental conference ______
Professional organization ______
Student affairs (other than discipline) ______
Student discipline ______

Teaching assignment ____
Testing program ____
Other ____
Total ____

6. Oral teacher-initiated communication through individual conference with the principal (include all conferences whether planned or unplanned.)

Coordination of school program ____
Building and room maintenance ____
Curriculum development ____
Instructional materials ____
Parental conference ____
Professional organization ____
Student affairs (other than discipline) ____
Student discipline ____
Teaching assignment ____
Testing program ____
Other ____
Total ____

7. Oral teacher-initiated group conferences with the principal (more than one teacher requesting a conference with the principal in the same conference)

Coordination of school program ____
Building and room maintenance ____
Curriculum development ____
Instructional materials ____
Parental conference ____
Professional organization ____
Student affairs (other than discipline) ____
Student discipline ____
Teaching assignment ____
Testing program ____
Other ____
Total ____

COMMENTS

Any comments that you care to make concerning your communication network within your school or special devices that you use to improve communication will be appreciated.

PERSONAL DATA

1. Your age: 20-25; 26-30; 31-35; 36-40; 41-45; 46-50; 51-55; 56-60; 61-65; 66-70; over 70 (circle one).
2. Your sex: F M (circle one).
3. Years teaching experience: 1-5; 6-10; 11-15; 16-20; 21-25; 26-30; 31-35; 36-40; over 40 (circle one).
4. Years with Ohio schools: 1; 2; 3; 4; 5; 6-10; 11-15; over 15 (circle one).
5. Years in present school: 1; 2; 3; 4; 5; 6-10; 11-15; 16-20; 21-25 (circle one).
6. Years administrative experience: 1; 2; 3; 4; 5; 6-10; 11-15; 16-20; 21-25; 26-30; over 30 (circle one).
7. Highest college degree: B.A.; M.A.; doctorate (circle one).

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[1] Charles L. Wood, "An Analysis of the Communication of Principals and Relationship to the Satisfaction of Teachers." Unpublished doctoral Dissertation, University of Iowa, 1966. With permission of the author.

APPENDIX F

Correspondence Forms:

Letter to the Principals

Reply to the Principals

Letter Tracer to the Principals

11576 Glamer Drive
Parma, Ohio   44130
January 25, 1968

Dear Sir:

In the very near future, I will be compiling data for my doctoral dissertation at the University of Akron. Its proposed title is "An Analysis of the Relationship of the Degree of Satisfaction of Teachers Within Certain Ohio Elementary Schools with the Formal Communication of Their Principal."

The instrumentation consists of two measures, one to be completed by the principal over a twenty day period and the other individually by members of your faculty. All are to be unsigned and will be held in the strictest of confidence. None are too time-consuming for their completion.

From the Ohio Educational Directory 1966-1967, for the statewide sample, your school has been randomly selected for this study. Will you please indicate if you would care to assist me by checking the appropriate responses below? If your answer is positive, I will shortly forward to you the two instruments.

Sincerely yours,

Carl Helwig

Forward the materials ____
Number on faculty ____
Do not forward the materials ____

11574 Glamer Drive
Parma, Ohio 44130
February 5, 1968

Dear

Thank you for your willingness to help me.

You will find enclosed two instruments, a *Principal's Data Sheet* and an *Organizational Climate Description Questionnaire*. The first is to be completed by you, the last two by ten members of your faculty randomly selected by you. Self-addressed envelopes are provided for the separate return by each individual of his own completed forms.

Kindly tabulate on your *Principal's Data Sheet* the required information for a twenty-day work period, specifically from February 12 to March 11, 1968, both dates being inclusive, and Saturdays and Sundays and Washington's Birthday excluded. Upon its completion, kindly return the form in the envelope provided.

Please distribute to the ten faculty members selected an *Organizational Climate Description Questionnaire* and ask each of them to complete the forms at his earliest convenience, but no later than March 11, 1968. The forms are to be returned under separate cover.

If you so indicate, I would be happy to give you the results both for your building and the total study.

In the meantime, I appreciate the assistance rendered by both you and your faculty.

Sincerely yours,

Carl Helwig

11574 Glamer Drive
Cleveland, Ohio
44130
March 15, 1968

Dear

( ) We have not yet received from you the Principal's Data Sheet.

( ) Of the ten Organizational Climate Description Questionnaires _____ have been returned. May we ask that you remind the remainder of your faculty to return them as soon as possible in the envelopes provided?

Thank you and your staff for your assistance.

Very truly yours,

Carl Helwig

FINAL REPORT

Grant Number OEG-5-9-080005-3715

PART II

THE TEACHER SATISFACTION SCALE

Dr. Carl Helwig
University of Akron
Akron, Ohio 44304

December, 1969

The research reported herein was performed pursuant to a OEG-5-9-080005-3715 with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF

HEALTH, EDUCATION, AND WELFARE

Office of Education

Bureau of Research

I. Teacher Morale or Satisfaction and Research

Despite the acceptance within the Helwig dissertation of the Halpin and Croft operational definition of esprit, a residual problem about the nature of the variable, morale, esprit or satisfaction remained. ". . . we have stressed the point that group members must be able to enjoy social-needs satisfaction and satisfaction from task-accomplishment."[1] If this variable was so important, what did the research herein lead to?

Within their own operational definition of esprit, Halpin and Croft assumed that the teacher's principal source of satisfaction was his own interaction with fellow teachers and the principal. "But this, too, is an oversimplification," said Halpin and Croft. A teacher's main source of social-needs satisfaction could also perhaps be derived from a close personal relationship with his pupils. Much confusion seemed to exist about just what a scientific delineation of teacher morale might be. The endeavor herein was to pursue this problem further than the immediate needs of the Helwig dissertation.

Wood with his *Teacher Satisfaction Scale* (TSS) believed that ten factors determined the degree of teacher satisfaction, namely: (1) the teacher's estimate of the utilization of his talents by the principal and with this, the teacher's own sense of achievement (2) the teacher's estimate of the principal's success in working with his teachers (3) the teacher's estimate of his own relationships with other faculty members (4) the teacher's estimate on the overall agreement on the purpose of his school's education program (5) the teacher's estimate of cooperative determination of policy (6) the teacher's estimate of his acceptance and relationships in his community (7) the teacher's estimate of school policy on sick leave and its concern for the health of its teachers (8) the teacher's estimate of the principal's interest in the teacher's economic security (9) the teacher's estimate of his relationships with his students (10) the teacher's estimate of his own progress in fulfilling the objectives for his classes. Wood's eleventh item, the teacher's estimate of the relationship of the principal with the superintendent's office, was not included as a factor of satisfaction by Wood but treated as a separate factor for other analysis.[2] The original Wood *Teacher Satisfaction Scale* is attached as Appendix A and in this report it becomes Form A of the PTQ.

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[1] Andrew W. Halpin, *Theory and Research in Administration* (New York: The Macmillan Company, 1966), p. 217. Halpin and Croft described thoroughly their *Organizational Climate Description Questionnaire* (OCDQ), an instrument which measured a school's organizational climate. One of the subdimensions on this test was esprit, a variable operationalized to deal with teacher morale or satisfaction.

[2] Charles L. Wood, "An Analysis of the Communication of Principals and Relationship to the Satisfaction of Teachers in Selected Dependents Schools" (unpublished doctoral dissertation, The University of Iowa, 1964). For a discussion of nine of these ten satisfaction factors, see Lester W. Anderson and Lauren A. Van Dyke, *Secondary School Administration* (Boston: Houghton Mifflin Co., 1963), pp. 333-361. This may have been Wood's main source for his *Teacher Satisfaction Scale*.

When compared with Richardson and Blocker's twelve categories, Wood's ten items reveal a high concordance with them.[5] Although the significant relationship between morale and productivity has never been convincingly demonstrated, said Richardson and Blocker, "there is general agreement that, quite apart from any effect that morale might have on teaching effectiveness, high morale is desirable." This a priori assumption is rejected, but this notwithstanding, Richardson and Blocker through an inventory of the existing literature about morale in industry and education were able to isolate twelve differential categories which discriminated beyond the .01 level of significance and which provided "an indication of specific conditions contributing to low morale as contrasted to existing measures that only gave a general measure of morale." By constructing these twelve differential categories into a Differential Morale Attitude Inventory and administering it to a sixty-six member midwestern junior college faculty, the authors then subjected their data to a principal axis factor analysis and varimax rotation. Said Richardson and Blocker of the latter: "One of the principal arguments advanced in favor of the varimax solution is that it removes the element of subjectivity from factor analysis and, thus, brings it more closely in line with the objective requirements of scientific inquiry."[6] The four factors identified after this varimax rotation and the categories having high loadings were listed and compared at the same time with Wood's ten categories:

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[5] Richard C. Richardson, Jr., and Clyde E. Blocker, "Note on the Application of Factor Analysis to the Study of Faculty Morale," Journal of Educational Psychology 54:4 (August, 1963), 208-212, passim. Teacher morale is also measured by the Purdue Teacher Questionnaire. Each of the following ten factors of teacher morale is determined by at least five items: rapport with principal, satisfaction with teaching, rapport among teachers, teacher salary, teacher load, curriculum issues, teacher status, community support of education, school facilities and services, and community pressures. It is interesting to note how these factors do as well as do not compare with the Richardson and Blocker differential categories and their four factors derived by factorial analysis from their differential categories. Wood's items also bear some similarities to the PTQ factors. Wood treats his items as items not factors. The main point to observe, of course, is that each researcher has his own version of what the components or elements of the larger abstraction, teacher morale, might be. In short, each attempts his own operational definition.

The information on the PTQ is from R. W. Collins and P. J. Nelson, "A Study of Teacher Morale—Union (AFT) Versus Non-Union (NEA) Teachers," Journal of Educational Research 62:1 (September, 1968), 9-12.

[6] Ibid., 209.

Richardson and Blocker	2 Wood
Factor I: Supervision	
(1) Communications	
(2) Confidence in Administration	(2) Success of principal in working with teachers (3) Interest of your principal in your economic security.
(3) Relations with Immediate Supervisors	-
(4) Professional Growth and Advancement	(10) Your estimate of your progress in fulfilling the objectives of your classes.
Factor II: Self-Integration	
(1) Relations with Fellow Workers	(5) Your relations with other faculty members.
(2) Status and Recognition	(1) Utilization of your talents and sense of achievement (8) Your relationships and acceptance in the community.
(3) Identification with the Institution	(4) Agreement on purposes overall faculty agreement on the purposes of the educational program (6) Cooperative policy.
Factor III: Institutional Environment	
(1) Relations with Students	(9) Your relationship with students.
(2) Professional Growth and Advancement	-
(3) Work Environment	-
(4) Work Load	-
Factor IV: Employment Rewards	
(1) Adequacy of Salary	-
(2) Adequacy of Fringe Benefits	(7) School policy on sick leave and concern for the health of teachers.

Now for a comparison of Richardson and Blocker with Wood. With the former listing, the item, professional growth and advancement, appeared twice, otherwise the twelve separate categories were all identified. With Wood, there were duplications as indicated with Richardson and Blocker's categories, but of more importance for this research, communications, work environment, work load and adequacy of salary were not recognized by Wood in his listing as contributory to teacher morale. The first, communications, is a salient variable, however, in Wood's own dissertation as well as the Helwig dissertation, and it now need be admitted that it is only one of many variables which contribute to the more general and all-inclusive variable, morale. With the second, work environment, there might be a relationship between it and school organizational climate, although admittedly both might be determined by several different sub-variables. The third category, work load, was ignored by Wood. The fourth, adequacy of salary, was probably integrated by Wood in his category, "interest of your principal in your economic security," and according to Richardson and Blocker, it was a separate and independent dimension of morale since it was located in the area of job rewards. In short, when Wood's Teacher Satisfaction Scale was compared to Richardson and Blocker's empirical data, it did have concordance with the latter, and at the same time seemed not to have been developed from any theoretical framework.

Wood's Teacher Satisfaction Scale (TSS) contained eleven enumerations which intended to measure the overall degree of teach teacher satisfaction within a given school. Nine of the eleven items on the TSS were from Anderson and Van Dyke who asserted they had identified "the factors affecting teachers morale."[5] A comparison of the two enumerations revealed the following:

Anderson and Van Dyke	Wood
1. agreement on purposes	1. overall faculty agreement on purposes
2. cooperative determination of policy	2. cooperative determination of policy
3. utilization of talents and a sense of achievement	3. utilization of your talents and sense of achievement
4. confidence and respect for administrators	4. success of principal in working with teachers
5. good relationships within the faculty	5. your relationships with other faculty members
6. community relations	6. your relationships and acceptance in the community
7. physical health	7. school policy on sick leave and concern for health of teachers
8. economic security	8. interest of your principal in your economic security
9. positive teacher student relations	9. your relationships with students
10. personal problems of teachers	10. your estimate of your progress in fulfilling the objectives of your classes
	11. your estimate of the relationship of your principal with the superintendent's office

Thus items ten and eleven on the Wood listing have no counterparts on Anderson and Van Dyke list. Wood operationalized his concept of teacher satisfaction by merely asserting it to be "the satisfaction of teachers as measured by the satisfaction questionnaire."[6] Anderson and Van Dyke offered no theoretical nor any empirical base for their assertions.

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[5] Lester W. Anderson and Lauren A. Van Dyke, Secondary School Administration (Boston: Houghton Mifflin Co., 1963), pp. 333-347.

In their own exhaustive study of the elementary school principalship, Gross and Herriott linked four variables to organizational climate, namely: the principal's Executive Professional Leadership, (EPL) his teachers' morale, his teachers' professional performance and his pupils' performance. "The findings, in short, reveal that both teachers' professional performance and morale may serve as links in a causal chain between the EPL of principals and performance of their pupils."[7] But also when the principal's EPL and his teachers' morale were correlated and the other two variables, teacher professional performance and pupil performance disregarded, then the "assumption that the EPL of the principal can influence the morale of his teachers is tenable; the greater the EPL of the principal, the higher the morale of his teachers" ($p < .001$ on all six of the subdimensions of morale as defined by Gross and Herriott. Also see below). On another two-variable correlation, Gross and Herriott also discovered that "high morale in the teachers is associated with high productivity in elementary school pupils."[8]

Wood's ten items on the TSS were contrasted with the Gross and Herriott six-item formulation:

Wood	Gross and Herriott
Utilization of your talents and sense of achievement.	Pride in school.
Success of principal in working with teachers.	Enjoyment of work environment
Your relationship with other faculty members.	Loyalty to school.
Agreement on purposes (overall faculty agreement on the purposes of the educational program).	Cooperation with fellow teachers

---

[6] Wood, op. cit., p. 13. This listing is not in the same order as the items appear on the TSS. Instead they are listed with their counterparts from Anderson and Van Dyke.

[7] Neal Gross and Robert E. Herriott, Staff Leadership in Public Schools (New York: John Wiley and Sons, 1965), pp. 56-61.

[8] Ibid.

Cooperative determination of policy

Your relationships and acceptance in the community.

School policy on sick leave and concern for the health of teachers.

Interest of your principal in your economic security.

Your relationship with your students.

Your estimate of your progress in fulfilling the objectives of your classes.

Acceptance of educational philosophy.

Respect for the judgment of superiors.

Thus, whatever promoted for teacher morale in the Wood dissertation did not compare too sharply with the Gross and Herriott concept of teacher morale.

Thus, there also appeared to be differences among the researchers cited as to what exactly constituted the variable, morale.

II. Further Research Herein on Morale

Two facts were responsible for the research reported from here on: (1) Wood's assertion as Helwig's dissertation advisor, that teacher morale was, if not an observable phenomenon, it was at least a scientifically measurable one. He was supported by the Halpin and Croft operational definition of teacher esprit in their own OCDQ. Wood, as a result, directed that his own TSS (Form A) be "standardized." (2) With such a beginning, the Wood and Helwig samples were subjected to a standard error of difference between two means for correlated data. In short, since Wood's Form A was used in both samples to measure teacher satisfaction, did Form A reveal a significant difference within the two teacher samples? Wood's sample in his dissertation consisted of elementary and secondary teachers in Overseas Dependents' Schools, European Command and its data was gathered in 1966. Helwig's sample consisted of Ohio elementary school teachers and its data was gathered in 1969.

Table I shows the results. With a z of 3.9979, Form A was measuring something beyond the .001 level of acceptance on a one-tailed test.

The next step was to correlate by school in the Helwig Ohio sample, the esprit mean scores of the Halpin OCDQ, and the satisfaction mean scores of the Wood's Form A. In short, both instruments purported to measure the same phenomenon, teacher morale. If this were so by having each respondent in the Helwig sample execute both Form A as well as the OCDQ and then correlating these pairs of scores by school should have resulted into a significant correlation.

Table II shows the results. The obtained Spearman rho of .048 was not significant at the .05 level of acceptance and did not even near the desired rho of .274 at the .1 level of acceptance. It, therefore, had to be concluded that *OCDQ* esprit subtest and Form A were not measuring the same phenomenon, teacher morale, esprit, or satisfaction although both instruments individually purported to do so.

Another way to examine the problem was to correlate separately the *OCDQ* esprit means as well as the Form A satisfaction means against a third variable in the Helwig sample, namely, the frequency of total principal-teacher communications within each school.

Tables III and IV show the results. Table III shows the data by school of the respective frequency of total principal-teacher communications and esprit means. The obtained Spearman rho of .21 was not significant at the .05 level of acceptance. In a similar manner, Table IV shows the frequency of total principal-teacher communications and teacher satisfaction means. The obtained rho of .04 is not significant at the .05 level of acceptance. In other words, when pitted against a third variable, neither the *OCDQ* esprit subtest nor Form A yielded any significant results, although it also must be admitted that this effort is not as exact as that in Table II for the efforts in Tables III and IV could have yielded significant results between frequency of principal-teacher communications and not necessary morale *qua* morale.

In a similar manner, the variable, frequency of total principal-teacher communications was separated into frequency of principal downward communications to the faculty and frequency of teacher upward communications to the principal. Each of these sub-variables was then correlated with the *OCDQ* esprit means as well as the Form A satisfaction means.

Tables V and VI show the results. The rho between the frequency of principal downward communications to the faculty and the esprit means was .278 and between the frequency of principal downward communications and the teacher satisfaction means was .057. Neither rho coefficient was significant at the .05 level of acceptance. The rho between the frequency of teacher upward communications to the principal and esprit means was .308 and between the frequency of teacher upward communications and teacher satisfaction means was -.082. Neither of the two rho coefficients was significant at the .05 level of acceptance.

III. Further Modification and Field Testing of Wood's Teacher Satisfaction Scale

Wood's Form A was modified into Form B and subjected to further field testing. Throughout the remainder of this report, four forms of the TSS are involved. A copy of each form is attached as Appendices A, B, C and D, and correspond with labeling of Forms A, B, C and D.

Form A with the Ohio sample yielded a split-half item reliability coefficient of .93 with the Spearman-Brown prophecy formula applied. Its behavior in the cross-correlation of the Wood and Helwig samples, indicated above, as well as this high reliability coefficient of .93 suggested that perhaps, after all, including Wood's own subjective assertion that the TSS could not only become a viable instru[illegible], but more so, that teacher morale was a real and not necessarily a psychic phenomenon. Further supporting this last conjecture was Halpin's own esprit dimension of the OCDQ which Helwig had adopted in his own dissertation in preference to the Wood TSS.

Other investigators besides Halpin, Cross and Harriott, and Richardson and Blocker, have investigated into the phenomena teacher morale. Guba[9], Getzels[10] and Bidwell[11] had become concerned with the same phenomenon. The Guba and Getzels theoretical model was applied to the revisions of Wood's Form A on the assumption that the original Wood delineation of morale would be altered only to the extent that it would require such modification because of statistical evidence, and at the same time, be brought into some theoretical framework since Wood's original Anderson and Van Dyke source did not provide a theoretical framework, but seemingly was no more than a taxonomic enumeration. The efforts of these researchers provide additional material for further discussion below.

In the Helwig dissertation, preference was given to the Halpin OCDQ esprit subdimension rather than satisfaction on the Wood TSS as an indicator of teacher morale. Halpin subjected his OCDQ to greater testing, including factorial analysis. Wood's dissertation did not contain even a reliability coefficient and thus it seemed his TMS had not been subjected to any theoretical nor statistical sophistications. Both Richardson and Blocker as well as Gross and Herriott believed they had a set of criteria which could determine faculty morale in an educational setting. Anderson and Van Dyke also thought they had a criterion. The Richardson and Blocker and Wood listings had some close parallels among their items. The converse was true with the Gross and Herriott and Wood comparisons. Finally, the close parallels between the Anderson and Van Dyke and Wood criteria were established. Their listings appeared to be a descriptive taxonomic enumeration.

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[9] Egon G. Guba, "Morale and Satisfaction: A Study in Past-Future Time Perspective," Administrative Science Quarterly 3:2 (September, 1958), 195-209.

[10] Jacob W. Getzels and Egon G. Guba, "Social Behavior and the Administrative Process," The School Review (Winter, 1957), 423-441.

[11] Charles E. Bidwell, "The Administrative Role and Satisfaction in Teaching," Journal of Educational Sociology 29 (September, 1955), 41-47. Bidwell alluded as early as 1955 to one probably difficulty involved in operationalizing the variable, teacher morale: "Some means must be found to separate this personalistic [personal desires and attitudes] from the non-personalistic role expectations if a valid instrument is to result." p. 46.

A study of the ten factors utilized by Halpin and Croft on their OCDQ esprit subdimension listed in the Helwig dissertation revealed little commonality with Wood's eleven items on his Form A. The preference in the Helwig dissertation with the Halpin and Croft operational definition of the subdimension esprit and its more sophisticated development as a reliable and valid measure over the Wood delineation have been stated above. Reliability and validity data are to be found in the Helwig dissertation. In addition, Lonsdale's hypothetical attempt as well as Halpin and Croft's similar effort, summarized in the Helwig dissertation, to show the relevancy of esprit to organizational climate have together forced Helwig to prefer the OCDQ esprit subtest over Wood's Form A. However, all this did not completely resolve the problem. Was teacher morale really a viable concept? From the further research done with the TMS with Forms B and C, the reply at this point must be an emphatic "no." With the Halpin and Croft esprit subdimension the answer is "perhaps."

The statistical explorations with Forms B and C revealed an interesting statistical dilemma; namely, that an instrument could produce high reliability coefficients and yet completely collapse under factorial analysis. Thus, here an important research question is posed: are researchers deceiving themselves by perfecting instruments with high reliability coefficients and not subjecting their instruments at the same time to factorial analysis? Or secondly, are both reliability coefficients as well as factorial analyses necessary to get at the realness of a given behavioral phenomenon? Finally, Halpin and the other researchers mentioned herein may have been dealing with nominal and not real concepts. This last point will be treated in detail in later sections. Here, the experience with Forms B and C will be reported to illustrate the reliability coefficient--factorial analysis dilemma.

Form A was only slightly modified as Form B. The attempt was to simplify teacher responses and to separate Item 1 on Form A into two items. Improvement in teacher response, moreover, was sought by reducing Form A to a one page instrument, the elimination, of the so-called Osgood semantic differential used by Wood, and the substitution for it a simple one to five scale, and, finally, the conversion of Form A's items into simple declarative sentences. Form B therefore contained eleven items as Form A, except Item 1 on Form A was discarded and Item 1 became two items on Form B. This them all resulted neatly into the Anderson and Van Dyke taxonomic enumeration, modified, of course, slightly by Hood's own thinking. Wherever the theory lay, if one was necessary as it is held herein, was not in evidence--neither in the Anderson and Van Dyke nor the Hood formulations.

Rather than obtain a one-sample one-within school reliability coefficient as had been done with the Ohio sample, with Form A, the following Virginia Form B sample by school yielded the following split-half odd-even item reliability coefficients. The Spearman-Brown prophecy formula was also applied. Form B, moreover, was administered at faculty meetings, while Form A had been administered through the mails. Thus, it was assumed a slightly better control of the sampling technique. The following Virginia Beach, Virginia schools participated and the following split-half reliability coefficients were obtained:

Aragona Elementary School	* .76	N = 29
Princess Anne High School	* .71	N = 42
Bayside High School	* .88	N = 51
First Colonial High School	* .77	N = 63
Kellam High School	* .84	N = 48

*p ≤ .01 in all instances N_t = 233

Form C was the result of the factorial analyses performed on both Forms A and B reported below. Here the odd-even item as well as the odd-even respondent reliability coefficients for Form C are reported to show the increases in reliability. Later below will be reported the confusion which had resulted through factorial analyses. In short and again, the split-half reliability coefficients and the factorial analyses have taken separate routes. Why? An explanation will be attempted after the reliability coefficients statistical evidence on Form C is reported.

With Form C, three elementary schools, Yates Elementary School, Newport News and J. B. Stuart and Brookwood Elementary Schools, Norfolk, Virginia, supplied the data for the odd-even item reliability coefficient for Form C. Item 16, "the performance of the guidance counselors at this school in relation to my pupils is ____" of the nineteen item Form C was not completed by the elementary school teachers for none of these schools were staffed by guidance counselors. The total number of teachers responding to Form C at faculty meetings was 74 and a rather high odd-even item reliability coefficient of .97 (p ≤ .01) with the Spearman-Brown prophecy formula applied as the result.

The odd-even respondent reliability coefficients by school resulted in the following.

Yates Elementary School	.85	N = 22	(p ≤ .01)
Brookwood Elementary School	.95	N = 24	(p ≤ .01)
J. B. Stuart Elementary School	.96	N = 28	(p ≤ .01)
		N_t = 74	

Therefore, higher item reliability coefficients were patterning through Form C as contrasted to Form B when p was held constant at .01.

Another odd-even item reliability coefficient for a larger global assessment was obtained by computer at the Engineering Center Old Dominion College, Norfolk, Virginia. The N for this sample totaled 378 teachers from Churchland High School and William E. Waters Junior High School, Portsmouth, Virginia; William A. Taylor Elementary School and Rosemont Junior High School, Norfolk, Virginia; Princess Anne, Kempsville, Kellam and Bayside High Schools, Virginia Beach, Virginia, and Pensacola Christian School (K-12) Pensacola, Florida. This last school's data was obtained personally by a graduate student enrolled in a course taught by the principal investigator. For this obtained odd-even item data, Item 17 on Form C, "As a general statement, the socio-economic background of my pupils is ____" was treated as a dead item to provide the necessary "evenness" for the odd-even item correlation. For the one elementary school in the sample, Item 13, "The performance of the guidance counselors at this school in relation to my pupils is ____", received a 3.5 scaled value.

With the Spearman-Brown prophecy formula applied, the 378 teacher odd-even item reliability coefficient was .93. It must be concluded from the several perspectives and samples, Form C produced high reliability coefficients and because of its higher reliability coefficients, Form C should be an improvement over Form B. Table VII summarizes all these reliability coefficients.

III. Research on Teacher Morale With Form C, Including Factorial Analyses.

When Form B was modified into Form C, it will be recalled, an attempt was made to alter the initial structure of Form B as little as possible for Form B had produced reasonably high reliability coefficients. Moreover, a two factor rotational solution with Form A with the Ohio sample accounted for 61 per cent of the variance, while a Virginia sample with Form B accounted for 74 per cent of the variance. With the high reliability coefficients above and the 61 and 71 per cent variances reported by factorial analyses, was the variable teacher morale after all a real as well as a viable concept? More will be said below about some deception incurred from the factorial analyses, but now the application of the Getzels and Guba theoretical model for morale must be explained because in the modification of Form C from Form B, this theoretical model was applied. However, it was only applied to those items on Form B which had no relevance to this model. Moreover, the four factor rotational solution with Form B and a Virginia sample was also influential in the modification of Form C. In short, the theoretical model was applied both rationally as well as statistically from evidence gathered thus far.

The Redwig dissertation touched on the Getzels and Guba theoretical model briefly. Here are some repetition and further expansion of it. Schematically, the model is as follows:[12]

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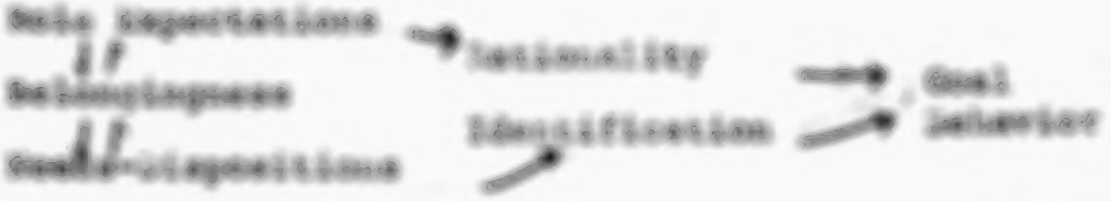
[12] Getzels and Guba, op. cit., 431-439.



Definitions for morale, effectiveness, efficiency and satisfaction, said Getzels and Guba, were more or less arbitrary. Their model considered two elements, feelings of identification and a sense of belongingness, both attributes being prevalent in the existing literature on morale. They further suggested a third additional element, rationality. Thus whatever morale was, theoretically, at least, according to Getzels and Guba, it did affect organizational goal behavior.

Somewhat in further refinement, Guba with his own empirical study gave a demonstration of his "central theoretical postulate," namely: that time was a critical variable between morale and satisfaction. According to Guba, satisfaction in past experiences predisposed an individual toward satisfactory experiences in a new situation, it being "a state or quality of contentment which arises when a situation is so structured as to permit a subject to discharge both organizational requirements and individual needs by simultaneous acts and hence with a minimum expenditure of energy." Morale, on the other hand, was "a predisposition on the part of persons engaged in an enterprise to put forth extra effort in the achievement of group goals or objectives." Both definitions were operational definitions, had been in part, confirmed by his own investigation, and were, according to Guba, operational definitions for stable situations. Moreover, he held, actions which occurred in conformity with external pressures, but without meeting individual needs, were energy-consuming without necessarily being at the same time satisfying, thus suggesting that high satisfaction must usually precede high morale and that a system state of low satisfaction was also a system state of high energy consumption. Therefore, a system state of low satisfaction and high morale was an incompatability.[13] Nevertheless, Guba had been occupied with the variable, morale, empirically.

Thus, according to the above Getzels and Guba theoretical model, the role of expectations of the principal as perceived by the teacher, if these expectations be also rational to the teacher, would meet one of the latter's own many needs-dispositions. This interaction would also provide at the same time for the teacher a sense of belongingness. Furthermore, with the teacher's perceived rationality of the principal's behavior would also provide for the former a sense of identification. Rationality of role expectations and identification with needs-dispositions should lead to satisfying institutional goal behavior by the teacher. In short, the teacher fulfilled his own role as a teacher, at least to himself, in a satisfying manner.

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[13] Egon G. Guba, "Morale and Satisfaction: A Study of Past-Future Time Perspective," Administrative Science Quarterly 3:2 (September, 1958), 195-209, passim.

Halpin discovered the esprit subdimension of his OCDQ to be a determinant in a school's organizational climate. Moreover, he found esprit (his identical label for teacher satisfaction or morale) usually varied directly with a school's organizational climate, that is to say, the more open a given school's organizational climate, the higher its teacher (faculty) esprit. However, he was also critical of how morale as a variable had usually been employed.

> One obvious approach to Organizational Climate is the attempts to encapsulate everything important to be said about the climate within the single global concept of morale. With this approach the best that we can hope to do is to estimate how high or low the morale of a given organization is. The reading on the thermometer of morale can tell us whether the organization is sick, but it can scarcely provide us with a basis for making a differential diagnosis of the sickness. The difficulty, of course, is that this approach rests on the a priori assumption that a single dimension--that is, morale, can usefully summarize the essence of the variations that occur in organizational climates. By definition, these variations are thereby restricted to a single, narrow continuum, even as the mercury in a thermometer is physically restricted to a narrow, vertical channel. But the assumption of this approach is untenable, for research on morale has yielded above all, one unequivocal finding: morale, whatever it may or may not be, is not unidimensional in its structure. Whatever is being described by the 'term' morale is multifaceted; any attempt to describe this 'something' as if it has but a single face does violence to the phenomena that we seek to understand.[14]

The above, in part, may help explain some of the statistical outcomes in the factorial analyses to be discussed below. The continued high loadings on Factor I for Forms A, B and C on the TSS seemingly seemed to go contrary to Halpin's position that morale is multifaceted. That is, if once the high reliability coefficients of Forms A, B and C were accepted, then this multifaceted aspect should have shown up at least on a two rotational factor solution, especially if by the time Form C had been employed, a theoretical model, in this case, the Getzels and Guba model, had also been put to empirical test.

Halpin himself provided one possible answer when he said that "this emotionally charged term means different things to different people." Then [illegible] quoting Haire, Halpin also set the theme in part for why the research herein must also finally become to be labeled as a "hopeless pursuit." Said Haire:

> There is probably no other field in the general area of social psychological problems in industry in which there are so many publications as there are

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[14] Halpin, op. cit., pp. 141-142.

> under the general heading of morale. The number of different situations and with different instruments is legion and it has become necessary to fall back on a biennial bibliography simply to keep abreast of those reported in professional journals.
>
> In spite of all this material, it is still difficult to say what is meant by morale, what its springs are in the human organization of a factory, or what its results are. ...There is no question but what morale -- however the concept should be defined -- is a real phenomenon. Indeed, there is little question that it is an important variable. However, this field, representing a triangular meeting of difficult grounds in motivational theory, the theory of social organization, and the techniques of interviewing is largely unrewarding. It remains as a technical problem, both from the point of view of the investigator who does not know quite how to tackle it, and the point of view of the industrial executive or consultant social scientist, who does not know quite how to handle it, but who feels that it is there and that it must be important.[15]

Perhaps, the last comment may be applicable to those who direct research and invoke their intuitive powers too strongly when they dogmatically believe that a given phenomenon "must be there and that it must be important."[16]

From the factorial analysis which follows, the statistics from it did not coincide with intuition when Form B was put under factorial analysis. Then on the assumption that the experience from the factorial analysis of Form B plus the use of the Getzels and Guba theoretical model would yield some form of reality, the experience with Form C confirmed this investigator's own conclusion at this point that empirical research with the variable morale, after all, may be indeed a hopeless pursuit. However, some insights by DiRenzo on nominal and real concepts help explain the futility of some forms of operationalism in research. This will follow after the presentation of the data obtained through Forms B and C through factorial analysis. The reported non-findings should lend some support to Haire's position.

Richardson and Blocker were critical of earlier methodology in the efforts to operationalize the variable, morale. By treating each item on an inventory or questionnaire as a factor resulted, according to Richardson and Blocker, into the failure to recognize the unreliability of individual test items. Another method was to group items into categories on some a priori basis and then as with the first method to generalize on those bases. Neither method was satisfactory, said Richardson and Blocker, for they did not result in a differential survey, but rather may have given only a general measure of morale.[17] As a result, Richardson and Blocker in a survey of existing educational and industrial literature discovered twelve differential categories related to morale, namely: communication, confidence in the administration, relations with immediate supervisors relations with fellow employees, relations with students, status and recognition, identification with institution, professional growth and advancement, adequacy of salary, adequacy of fringe benefits, work environment and work load. (These categories had been cited earlier herein.) With a modification of chi square analysis as reported by McNemar,[18] their twelve differential categories, said Richardson and Blocker, discriminated among the responses well beyond the .01 level of significance. In short, for the purposes herein, Richardson and Blocker claimed that they had operationalized the variable, morale, in the form of a *Morale Attitude Inventory*.

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[15] Halpin, *op. cit.*, p. 33.

[16] Halpin is quoting Mason Haire from "Industrial Social Psychology" in *Handbook of Social Psychology*, Volume II. Gardner Lindzey, editor. Cambridge, Mass.: Addison-Wesley Publishing Company, Inc., 1954.

More specifically, this teacher morale attitude inventory was administered to a 66 member Midwestern junior college faculty and it also was subjected to varimax rotation by the principal axis method. With this factorial analysis, four factors were tentatively identified from the twelve differential categories, namely: *Supervision* (through communication, confidence in administration, relations with immediate superior, and professional growth and advancement), *Self-Integration*(through relations with fellow workers, status and recognition, and identification with the institution), *Institutional Environment* (through relations with students, professional growth and advancement, work environment and work load), and *Employment Rewards* (through adequacy of salary and adequacy of fringe benefits). This last factor, Richardson and Blocker noted, was quite independent of the other three factors, it being, furthermore, thus in agreement with industrial research studies in this respect. For the research herein, then, not only do Richardson and Blocker lay claim to the phenomenon of teacher morale as a variable, but also to its operationalization as well as the use of factorial analysis to discover four contributing factors to teacher morale, that is, Supervision, Self-Integration, Institutional Environment and Employment Rewards.

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[17] Richardson and Blocker, *op. cit.*, 200-204. Thus the research on morale by the following could be questioned: B.J. Chandler, "Salary Policies and Teacher Morale," *Educational Administration and Supervision* 45 (1959), 107-110; C. Mathis, "The Relationship Between Salary Policies and Morale," *Journal of Educational Psychology* 50 (1959), 275-279; and F. L. Redefer, "Factors That Affect Teacher Morale," *Nation's Schools*, 63 (1959), 59-62.

[18] Q. McNemar, *Psychological Statistics* (New York: John Wiley and Sons, 1955).

It seemed appropriate to put the existing data to factor analyses. Form A with its 313 Ohio teacher sample was therefore subjected to a two factor varimax rotational solution.[19] It will be recalled this form in all probability had no theoretical base and came from the Anderson and Van Dyke taxonomic enumeration with some modifications by Wood. Said Richardson and Blocker of varimax rotational solutions: "One of the principal arguments advanced in favor of varimax solution is that it removes the element of subjectivity from factor analysis and, thus, brings it more closely in line with the objective requirements of scientific inquiry."[20] In short, if Form A, despite its rudimentary structure, were subjected to factorial analysis, what would the data say, if anything?

Table VIII shows the results for a two factor solution. Two eigenvalues of 4.87 and 1.27 respectively emerged. Any eigenvalue of one or more produced, according to Halpin, a "good factor."[21] Factor I explained 48 per cent of the variance, while Factor II added another 13 per cent for a 61 per cent total variance. This in itself seemed encouraging.

On this Ohio sample two factor Items (variables) 1, 2, 3, 4, 5, 7 and 8 of Form A loaded significantly on Factor I and this factor (or construct) was tentatively identified as Individual Social Needs. Items (variables) 1, 3, 4 and 5 also loaded significantly on Factor II along with items (variables) 6, 9 and 10. The best identification which could be given to Factor II was Interpersonal Relationships. However, this construct was not too satisfying for it seemed to encroach on the concept of Factor I. This conjecture was further supported by the common, yet significant, loadings of Items (variables) 1, 3, 4 and 5 on both Factors I and II. Furthermore, it seemed most difficult to relate these two tentatively-identified factors, Individual Social Needs and Interpersonal Relationships, to Richardson and Blocker's factors of Supervision, Self-Integration, Institutional Environment, and Employment Rewards, with any precise clarity. Obviously, as a researcher moved toward abstraction as well as fewer abstractions, even through factorial analysis, precision seemed to suffer under the law of parsimony.

So what did Wood's Teacher Satisfaction Scale as Form A produce as a scientific explanation of the phenomenon, teacher morale, thus far: (1) it failed to correlate with Halpin's esprit OCDQ subdimension, although both the TSS (as Form A) and the OCDQ esprit subtest were each completed respectively by 313 Ohio elementary school teachers (2) it produced some rather high split-half reliability coefficients with the same sample (3) it withstood on a questionable basis a two factorial analysis of variance by failing to reveal two clearly distinguishable factors, while at the same time it explained 61 per cent of the total variance under a two factor rotational solution (4) it could not, it seemed, be related in any meaningful way to Richardson and Blocher's empirical research?

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[19] Richardson and Blocker, op. cit., 208-212, passim.

[20] Richardson and Blocker, op. cit., 209.

[21] Halpin, op. cit., pp. 159-160.

What identification and name a factor will be given depended on its loadings, according to Kerlinger. "Factor analysis," he said, "is a method for determining the number and nature of the underlying variables among large numbers of measures. ... Factor analysis serves the cause of scientific parsimony. ... When we ask what the factors are, we seek to name them. We want constructs that explain the underlying unities or common factor variances of the factors."[21]

According to a criterion established by Kerlinger, coefficients of .30 or higher in the research herein were considered "significant." "Unfortunately," said Kerlinger, "there is no generally accepted standard error of factor loadings. A crude rule is to use the standard error of r, or easier, to find the r that is significant for the N of the study. For example, with an N=200, an r of about .18 is significant at the .01 level. Some factor analysts in some studies do not bother with loadings less than .30 or even .40. Others do."[22] In the research herein, r's of .30 or higher were considered significant by the criterion established by Kerlinger.[23] Furthermore, the rotated, not unrotated, factor matrix was used for in support of Richardson and Blocher, Kerlinger said: "Rotation to achieve simple structure is a fairly objective way to achieve variable simplicity or to reduce variable complexity."[24]

With the exhaustion of probable conclusions obtainable through Form A, the data obtained through Form B may now be presented and interpreted. Table II shows the results. The presentation of this data is limited to a four factor rotational solution. Why a four factor rather than a two factor solution this time? Here, "scientific exploration" again to see what the statistical data through factorial analysis would yield. Would, for example, more eigenvalues of one or more emerge?

They did--as a matter of fact on all four factors; values of 4.01, 2.09, 1.47 and 1.05 respectively. Factor I, furthermore, explained 36 per cent of the variance; Factor II, 19 per cent; Factor III, 14 per cent; and Factor IV, 9 per cent for a total of 78 per cent. This in itself represented a gain from 61 per cent on Form A with the Ohio teacher sample to 78 per cent on Form B with a Tidewater Virginia teacher sample.

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[21] Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1964), pp. 651-652.

[22] Kerlinger, op. cit., p. 654.

[23] Richardson and Blocher seemed to have used an r of 40. Although their article or tables never so specifically state, their .40 cut-off is inferred from their Table 3 on p. 211 of their article.

[24] Kerlinger, op. cit., p. 663.

Form B, it will be recalled, resulted in the simplification of the scaling system and into a simpler grammatical construction of Form A's items. One theoretical consideration, however, also began to emerge. Would considering faculty morale to be a within school building phenomenon also result in a better control of the slippery variable, teacher morale? While the revision of Form A into Form B did not immediately consider this aspect, the revision of Form B into Form C did, when, at the same time, those items which did not support faculty morale within the school building or did not uphold themselves significantly on Form B's four factor factorial analysis were dropped in conversion of Form B into Form C. But before this conversion, Form B was subjected, it will be recalled, to split-half item reliability testing--this time by school. Respective reliability coefficients by school of .75 from one elementary school and .71, .88, .87 and .84 from four senior high schools suggested that not only was something purported to be teacher morale, was being measured consistently, but that this consistency was also occurring within a school building, that is, faculty morale was, after all being measured, whether at the elementary or secondary level. And was faculty morale within a given school building, after all, a measurable,singular phenomenon?

Halpin did not think so. His evidence seemed to make faculty morale a co-variant among the eight subdimensions of his OCDQ. Helwig in his dissertation sided with this view.[25] Halpin's OCDQ esprit subdimension definitely was a within-school-building operationalized variable. Wood in his formulation of Form A apparently did not consider this simple matter. Certainly to differentiate between teacher morale as a within school building phenomenon as contrasted to a school district phenomenon may be one advance toward a simple theoretical consideration of the elusive variable teacher morale. In short, many factors may affect teacher morale--domestic difficulties, low pay, etc.--but some fence-building itself were considered. Form C became the tentative result with other considerations also applied in its further modification. These will be explained further below in the meantime, the four factor rotational solution of Form B is explained and interpreted. Table IX shows this four factor rotational solution.

Items (variables) 1, 2, 3, 5, 6, and 7 loaded significantly on Factor I.[26] All these items (variables) except item 7 seemed to identify themselves under the factor (construct) Principal-Teacher Professional Relationships.

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[25] Carl Helwig, "Organizational Climate and Frequency of Principal-Teacher Communications in Selected Ohio Elementary Schools" (unpublished doctoral dissertation, Akron, Ohio: University of Akron, 1969), pp. 17-22.

[26] "Most factor analytic studies factor intelligence, aptitude, and personality tests and scales, the tests or scales themselves being intercorrelated and factored. Items of a single test can be factored, however. Persons, or the responses of persons can also be factored. In other words, the variables entered into the correlation and factor matrices can be tests, scales, items, persons, concepts, or whatever can be correlated in some way." Kerlinger, op. cit., p. 671.

Significant loadings on Factor II appeared on Items (variables) 5, 7, 9, 10, and 11. Item (variable) 5 loaded higher on Factor I (.63) and therefore tentatively belonged more with Factor I rather than Factor II. This conjecture was further supported by the significant loadings on the remaining items under Factor II, that is, Items (variables) 7, 9, 10, and 11. These four items but not Item 5 seemed to have one attribute in common, that they were, as suspected, out-of-school building items and therefore tentatively could be said to be items of morale common to all teachers within a given school district. They might not have been, therefore, items which more directly and definitely affected teacher morale within a given school building.

If an instrument were to detect differences in morale among faculties within school buildings, then items, which had common variance *without* the school building should have been eliminated. Factor II therefore was not identified and Items 7, 9, 10, and 11 were dropped from the next modified version of the *VSS*, namely Form C. Thus, as the factor analysis of Form B was interpreted, so at the same time Form C was being constructed.

On Factor III of Form B, Items (variables) 3, 4, and 9 loaded significantly. Item 3, however, loaded higher on Factor I. Items 3, 4, and 9 did not seem to have any commonality among themselves so that Factor III could be precisely identified. However, they did seem to share a suspected attribute, namely, what Halpin had identified empirically as Intimacy. This construct, according to Halpin, was "the teachers friendly social relations with each other. This dimension describes the social-needs satisfaction which is not necessarily associated with task accomplishment."[27] Factor III was therefore tentatively identified as Principal-Teacher Familiarity and the three items were so modified and entered on to Form C.

On Factor IV of Form B, Items (variables) 2, 7, 8 and 10 loaded significantly with Item 2 loading negatively. No common factor (construct) was readily discernible, but the high loadings did, as with Factor III, suggest a possible factor, that is, Teacher-on-the-Job Security. As with the three items of Factor III above, these four items were also modified and entered on to Form C. Factorial analyses with Form C and additional samples, of course, would provide the empirical proof as to whether Factors III and IV as thus identified would in reality become identifiable constructs.

Factor V on Form C, Teacher-Pupil Interaction, was an added new category of items (Factor II, it will be recalled, was dropped from Form C as the latter was being constructed from the evidence produced by the factorial analysis of Form B.) Halpin and Croft with their *OCDQ* did not seem to be too concerned with teacher-pupil interaction and relationships as determinants of within school building teacher morale. But they did consider teacher esprit to be a rather important subdimension on their *OCDQ*. Halpin and Croft discovered the *OCDQ* esprit subdimension to be a determinant of a school's organizational climate. Moreover, they found esprit (their identical label for teacher morale or satisfaction) to vary usually directly with a school's organizational climate, that is to say, the more open a given school's organizational climate, the higher its teacher (faculty) esprit. Of the ten items on the esprit subtest of Form IV of the *OCDQ*, only one item, "teachers spend time after school with students who have individual problems," seemed to deal directly with teacher-pupil interaction. Certainly, more than this one form of interaction with his pupils must affect an individual teacher's morale as a faculty member.

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[27] Halpin, *op. cit.*, p. 151.

The items for this intended factor for Form C were derived from the Getzels and Guba model. Thus, according to this theoretical model, the role expectations of his pupils, as perceived by the individual teacher, if these expectations further be rational to him, will meet one of his own many needs-dispositions. This interaction will also provide for him a sense of belongingness, and furthermore, with his perceived rationality of his pupils' behavior, a sense of identification. Rationality of role expectations and identification with needs-dispositions should lead to satisfying institutional goal behavior by the teacher. In short, the teacher fulfills his own role as a teacher, at least to himself, in a satisfying manner.

The items for the intended Factors I, III, IV and V of Form C should, it was believed, meet the Getzels and Guba theoretical test (Factor II, it will be recalled from Form B was dropped on Form C). What remained, of course, was to test the theory and Form C as one of its possible measuring instruments through additional factorial analysis with a new sample.

Before the effort with Form C is reported, a comparison of the so-called factors among the following stands as follows:

Richardson and Blocker	Form A	Form B
Supervision	Individual Social	Principal-Teacher Professional Relationships
Self-Integration	Interpersonal Relationships	Principal-Teacher Familiarity
Institutional Environment		Teacher-on-the-Job Security
Employment Rewards		Teacher-Pupil Interaction (added)

Table X shows the four factor solution for Form C. Items (variables) 1, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 16 and 17 loaded significantly (.30 or higher) on Factor I, which was tentatively identified on the Form B factorial analysis as Principal-Teacher Professional Relationships. Items 1, 4, 5, 12, 16 and 17 also loaded significantly on the other three factors, but a study of these items and the remaining significant items under Factor I called for a modification of the labeling of Factor I to Principal-Teacher Relationships. Said Kerlinger about the continued modifications of factorial identification: "Factor names are simply attempts to epitomize the essence of factors. They are always tentative subject to later confirmation or disconfirmation."

The new label, Principal-Teacher Relationships, of course, did not go much beyond the obvious, but the statistical evidence did, nevertheless, suggest that teachers do perceive the principal and their role expectations of him to be important determinants to their own "morale"--whatever this individual or collective psychic phenomenon might be. Perhaps it was not morale qua morale, but overt satisfying institutional goal behavior by the teachers themselves, that is, morale as thus conceived was not something like fever which could be measured with a thermometer to determine a high or low level as it was overt role behavior by the teachers themselves toward satisfying (and perhaps, productive) institutional goal behavior. Halpin is quoted again for this analogy: "One obvious approach to the domain of Organizational Climate is the attempt to encapsulate everything important to be said about climate within the single global concept of morale. With this approach the best that we can do is to estimate how high or low the morale of a given organization is. The reading on the thermometer can tell us whether the organization is sick, but it scarcely can provide us with a basis for making a differential diagnosis of the sickness. The difficulty with this approach rests upon the a priori assumption that a single dimension--that is, morale, can usefully summarize the essence of the variations that occur in organizational climates. By definition, these variations are thereby restricted to a single, narrow continuum, even as the mercury in a thermometer is physically restricted to a narrow vertical channel. But the assumption of this approach is untenable, for research on morale, whatever it may or may not be is not unidimensional in its structure."[28]

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[28] Halpin, *op. cit.*, pp. 141-142. As a result of Halpin's comment and the comment which follows, some more elaboration is necessary.

This investigator questions seriously as a result of this experience all attempts measuring psychic states, especially where the respondent himself is asked to give any form of quantification to this so-called inner state. Scaled items such as "strongly disagree," "disagree," "agree," and "strongly agree" do seem to solicit such inner psychic responses and seem to be quite popular in behavioral research. But is this not dealing with the thermometer?

Getzels and Guba's needs-dispositions dimension on their theoretical model also seem to solicit inner psychic state responses if their theoretical model is put to empirical test through quantification. But this itself may interpose a difficulty with methodology. If behavioral research is to get at meaningful findings, perhaps asking the respondent how he "feels" about something is fallacious. Rather, one respondent should be asked instead

Two considerations therefore, arose at this point: (1) at least two factors should underlie the variable morale and (2) perhaps measuring morale should not be an attempt to measure inner psychic states (as did Form C generally), but should be a measure of overt satisfying institutional goal behavior. That is, with the latter, the respondent is asked to respond to items which would elicit from him responses related to his own overt task achievement behavior or his own needs-dispositions behavior, both having psychic attributes, but nevertheless, his responses being solicited in how he behaves toward institutional goal behavior rather than how he "feels" toward it.

Nevertheless, Items (variables) 1, 3, 5, 6, 8, 9, 10, 11, 12, 13, and 17 of Form C loaded significantly under Factor I and all related to some perceptions by the teacher to some role expectation by him of the principal's behavior. Items 5 and 6 also loaded significantly under Factors II and III. Excluding these last two items, the remaining loadings definitely referred to the teacher's role expectations of his principal.

Items 1, 2, 14, 15 and 16 loaded significantly on Factor II. Items 14 to 19, it will be recalled, were added to determine if teacher-pupil relationships were contributory toward teacher morale. Hypothetically, they should be. Items 14, 15 and 16 loaded significantly and thus may be contributory, while Items 17, 18 and 19 did not. Items 14 and 15, which related to teacher-pupil interaction and Item 16 which related to teacher needs-dispositions, loaded significantly under the same factor. Thus those items which loaded significantly under Factor II were referred tentatively to as Individual Teacher Ego Needs-Dispositions.

Items 4, 5, and 17 loaded significantly under Factor III. No common theoretical attribute under a single construct (factor) was discernible under Factor III. Items 7, 12, 17, 18, and 19 loaded significantly under Factor IV and again no common theoretical attribute under a single factor was discernible.

From the statistical evidence above and again by the application of the Getzels and Guba theoretical model, a shortened Form D of the TMS became the next step. Only those items which loaded significantly under Factors I and II and had some theoretical relationship to the Getzels and Guba model were to be included in Form D on the assumption that satisfying institutional goal behavior by the individual teacher within the school building was most likely when his own perceptions of his principal's role expectations and the teachers own needs-dispositions neared congruence, thus promoting within the teacher a sense of belongingness. Moreover, the principal's role expectations by the teacher

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to report on another subject whom he has observed. Thus, observed, overt, behavior of another is being reported by the respondent and this may be a means away from the "thermometer dilemma."[5] This investigator seriously questions the validity of the measurement of the respondent's own inner psychic state with himself as the "observer."

must have for the latter rationality as well as his own need-dispositions must give him some sense of identification toward institutional goal behavior. Thus teacher morale or satisfaction from hereon is not defined and operationalized purely as an individual psychic state but as the congruence of perception along the two dimensions of principal role expectation and teacher need-dispositions--both dimensions, of course, emanating from the teacher's own perceptions. Therefore, teacher satisfaction, as thus conceived and operationalized on Form D, should result in overt satisfying institutional goal behavior by the teacher. In short--a form of homeostasis. Will Form D meet this field test?

Factor analyses were also attempted by school with the data gathered with Form C. "In considering the scientific value of factor analysis," said Kerlinger, "the reader must be cautioned against attributing reality and uniqueness to factors that do not exist. The danger of reification is great. It is easy to name a factor and then to believe there is a reality behind the name. But giving a factor a name does not give it reality. Factor names are simply attempts to epitomize the essence of factors. They are always tentative, subject to later confirmation or disconfirmation. Then, too, as Wolfe and others have pointed out, factors can be produced by many things. Anything that introduces correlation between variables creates a factor. Differences in sex, education, social and cultural background and intelligence can cause factors to appear. Factors also differ--at least to some extent--with different samples. Response sets or test forms can cause factors to appear. Despite these cautions, it must be said that factors do repeatedly emerge with different tests, different samples, and different conditions. When this happens, we can have fair assurance that there is an underlying trait which we are successfully measuring."[29]

If this all be so, how did the data gathered with Form C compare by school with the more global assessment shown in Table X? At this point, however, a preliminary question also arose: how would a researcher know whether a two, three, four or even a more factor rotational solution provided the best possible statistical answer?

First, two, three and four factor rotational solutions were produced by school by the computer on several of the samples. It was noted that on a three factor solution the variance explained was the same on the first two factors as the three factor solution and so on for X number of factors. For example, for J. D. Stuart Elementary School on its four factor rotational solution, the eigenvalues of 9.19 for Factor I, 1.89 for Factor II, and 1.66 for Factor III and .98 for Factor IV were the same on both the two factor rotational solution as well as the three factor solution. Thus, 9.19 and 1.89 showed up on the two factor rotational solution, but not 1.66. On the three rotational factor solution 9.19, 1.89 and 1.66 showed up, while on the four factor rotational solution the same eigenvalues of 9.19, 1.89, and 1.66 appeared on the printout

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[29] Kerlinger, op. cit., p. 689.

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with a .94 eigenvalue for Factor IV. Thus on a two factor solution, the same amount of variance for the first two factors was explained as on the first two factors on a three factor rotational solution for the same data, rather than the variance spreading itself more among a two factor solution as contrasted to a three factor solution.

Halpin had been quoted in saying that only those factors with eigenvalues of greater than one should be rotated. How was one to know? In this case, the Virginia-Florida sample with its 376 teachers was now subjected to an arbitrary twelve factor rotational solution to see what eigenvalues the computer would produce. The entire data from this printout is not presented here in tabular form for most of the information became irrelevant. However, eigenvalues of 4.89, 1.94, 1.28, and 1.04 appeared for the first four factors. The remaining eigenvalues on the other eight factors were less than one; therefore, some added confidence was gained that perhaps the original four factor solution explained above with Form C, after all, was the "best" solution provided, of course, four factors could be identified through some theoretical rationalization. As indicated above, fifty-eight per cent of the variance was explained by these four factors with eigenvalues of one or more. But as also indicated above, only Factor I and II seemed to lend themselves to some form of theoretical rationality, while Factors III and IV did not. Therefore, would the data gathered with Form D be best explained with a two factor rotational solution as hypothesized from the two dimensional Getzels and Guba theoretical model?

In the meantime, what could be interpreted from the four factor rotational solutions gathered with Form C and in these cases from the three elementary schools not included in the Virginia-Florida sample shown on Table X? These three elementary schools were Yates Elementary School, Newport News, Brookwood Elementary School, Virginia Beach, and J. B. Stuart Elementary School, Norfolk.

Tables XI, XII, XIII, and XIV show the data by factor rather than by school. Each school's factor is also compared to the Virginia-Florida samples factors. A coefficient of .30 or higher, as in all previous instances, was considered to indicate significance. Kerlinger, of course, set the direction of this thrust. He is quoted in part here again in this respect: "Despite these cautions, it must be said that factors do repeatedly emerge with different tests, different samples, and different conditions. When this happens, we can have fair assurance that there is an underlying trait which we are successfully measuring."[39] If this all be so, what did the statistical data yield on these four factor rotational solutions?

A study of Table XI, despite some correlations less than .30, showed the remaining correlations did pattern into a sufficient number of correlations higher than .30 leading to the speculation, as Kerlinger said," ...that factors do repeatedly emerge with different tests, different samples, and different conditions. [And] when this happens, we can have fair assurance that there is an underlying trait which we are successfully measuring." Here, of course, chance and variance both are operating among all the four samples--hence not total uniformity--but there seemed to emerge an underlying trait, namely Factor I, tentatively labeled as Principal-Teacher Relationships. (With Form B, this factor had been identified as Principal Teacher Professional Relationships. From the new evidence with Form C had to be modified to Principal-Teacher Relationships because of the new sense within the Items 1 through 13 inclusive). Moreover, if this were so, the factor, Principal-Teacher Relationships, becomes a most viable construct for Items 1 to 13 inclusive in all the four samples except Item 7, "My personal relationship with the other teachers in this school is ____," loaded significantly. On Item 7 in the four samples, loadings of .20, .18, .24 and -.06 revealed only one significant loading above .30--.58. In contrast, Item 8, "The personal relationships among the teachers and the principal in this school is ____," had four loadings higher than .30. Had this indicated that the factor identification of Principal-Teacher Relationships is a sound one? Whether the remaining loadings of less than .30 on Items 1 to 13 inclusive could be attributed to chance or non-chance was open to speculation. From Kerlinger's statement, chance variation was still operative both as error as well as specific variation. But from the total patterning of Items 1 through 13 inclusive, with the exceptions noted, should have indicated a common, non-chance variation to be operative--apparently perhaps Principal-Teacher Relationships.

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[39] Kerlinger, op. cit., p. 683.

If this all were so, to state from the evidence and according to this rationalization that Principal-Teacher Relationships were determinants in teacher morale--especially when the items which produced teacher reaction to the principal were items which mentioned him on a scaled response--is in a sense not to say much. This might be even dealing with the mundane, but at least this mundane conclusion was drawn, in part, from statistical evidence.

With a similar line of reasoning, what did the evidence from Table XII for Factor II yield from the four samples? Factor II previously had been tentatively identified as Individual Teacher Ego Needs-Dispositions with Form B. Did this identification stand up under some form of theoretical and statistical rationalization from the evidence in Table XIII? Items 1, 2, 14, 15, and 16 loaded significantly in all four samples except a .28 on Item 1 (can one also be too arbitrary with an iron-clad .30 cut-off for significance?), a .18 on Item 2 and a .03 and a .28 on Item 16. The conclusion here was that a factor identifiable as Individual Teacher Ego Needs-Dispositions was operative and a non-chance determinant in teacher morale.

With a similar line of reasoning as for Tables XII and XIII above, what did the evidence in Table XIV reveal for Factor III from the four samples? In Table X with the Virginia-Florida sample (N = 378), Items 4, 5, and 17 were said to have loaded significantly. A reexamination of the original printout called for some corrections.

This new evidence is conveniently presented in Table XIII with the three elementary school samples. The correction from the evidence in Table X should read that Items 4, 5, 7, 17 and 19 loaded significantly on Factor III with the exceptions of a .23 correlation on Item 4 in the Yates sample, a .04 on Item 5 in the Brookwood sample, a .03 on Item 7 in the Stuart sample, and a -.24 on Item 17 in the Yates sample. Therefore, the conclusion on these items for Factor III was that non-chance rather than chance variance occurred and some factor thus emerged.

But what identification could this factor be given? With the Virginia-Florida sample, discussed earlier above, it was stated that "no common theoretical attribute under a single construct (factor) was discernible under Factor III." Did this statement hold true again with the addition of the three elementary school samples?

The items loading significantly under this factor were:

4. My personal agreement with the educational goals of the curriculum in this school is ___.
5. The cooperative determination of policy in this school by the principal and the teachers is ___.
7. My personal relationships among the other teachers in this school is ___.
17. The principal's handling of pupil disciplinary problems referred to him by me is ___.

19. As a general statement, the socio-economic background of my pupils at this school to me is ___.

Items 4 and 5 seemed to relate to decision-making and policy; Item 7 to individual teacher-to-other-teacher interpersonal relationships; Item 17 to the principal's handling of pupil-disciplinary problems; and Item 19 to pupil socio-economic background. Were Items 4, 5, 7, 17 and 19 disparate items? Their patterning into dominantly significant loadings among the four samples, however could not be ignored. The statistical evidence, it was believed, was pointing to a something--a Factor III. It was decided to reverse the earlier "no single construct" position with Factor III, to not ignore the additional statistical evidence yielded with the addition of the three elementary schools and give a tentative identification to Factor III.

Richardson and Blocker's factor of Self-Integration seemed to provide the best rationale for the identification of Factor III. First, their own factor of Self-Integration, it will be recalled, was derived from factorial analysis. Second, Items 4, 5, 7, 17 and 19 seemed to fall readily into this abstraction; that is, Teacher Self-Integration. However, here a pitfall may as well be admitted to. As one moved from the concrete to the abstract (from the possible categorization of specific scaled items to the more abstract factorial identification), the opportunity for over-simplification could be the result. After all, with sufficient abstraction through both the processes of deduction as well as induction, all phenomena could be explained eventually in terms of a First Cause.

Nevertheless, if Factor III was thus accepted as being a reality--a non-chance rather than chance--reality, what had to be now said about the original two dimensional or two factorial explanation propounded earlier from the Getzels and Guba theoretical model? This, it seemed, provided no major problems; that is, to shift from a two factorial explanation and the relating of this two factorial explanation to the two dimensional Getzels and Guba model to a three or more factorial explanation and to relate these three or more factors to the two dimensional model.

Richardson and Blocker's empirical investigation provided the rationale. Their four identified factors, it will be recalled, were: Supervision, Self-Integration, Institutional Environment, and Employment Rewards. Getzels and Guba's model had been applied herein to the two dimensions of principal role expectations by the teacher and the teacher's own need-dispositions. To relate Richardson and Blocker's four factors to Getzels and Guba's two dimensions presented no problem and this integration became as follows:

Getzels and Guba	Richardson and Blocker
Principal's Role Expectations	Supervision
Teacher's Need-dispositions	Self-Integration Institutional Environment Employment Rewards

Thus for the research herein the Richardson and Blocker factor of Employment Rewards were ignored on the rationale that this factor is more in keeping with a school district factor per se rather than a within-school-building teacher morale factor. That is to say, low pay, for example, would tend to depress all district teachers' morale rather than within an individual school building. On the other hand, the factors, Self-Integration and Institutional Environment, pointed directly to the Teacher's Need-dispositions.

An examination of the statistical evidence in Table XIV of the four samples provided no firm patterning of correlations of .30 or higher among the 19 items on Form C to identify clearly a fourth factor. Therefore, the original decision with the Virginia-Florida 378 teacher sample had to stand as indicated earlier above: namely, that "Items 7, 12, 17, 18 and 19 loaded significantly under Factor IV and ... no common theoretical attribute under a single factor was discernible." Moreover, this is in part both supported as well as refuted by the .61, .24, -.29 and -.31 loadings on Item 7; the .43, .28, -.02, and .14 loadings on Item 12; the .55, .71, -.06, and -.04 loadings on Item 17; and the inapplicability of Item 18 to the three elementary school samples. In short, despite some significant loadings on these items, since those which were significant appeared as significant only fifty per cent or less on these items, they were rejected on this fifty per cent probability.

Thus, a detailed study by factor of the four rotated factors in the four samples (Tables XI, XII, XIII and XIV resulted in another tentative identification of three factors: namely, Principal-Teacher Relationships, Individual Teacher Ego Needs-Dispositions, and Self-Integration. These factors, it will be recalled, were derived through Forms A, B and C and the scientific endeavors enumerated above with these forms. These three factors, it was hoped, should have provided a logico-mathematical as well as a hypothetico-deductive basis for their existence. Also, it will be recalled, the four factor rotational solution appeared to be statistically the "best" rotational solution for only eigenvalues of one or higher were thus rotated. However, an examination of the loadings on Factor IV with Form C left but only three, not four, identifiable factors. These three factors will be now related to Getzels and Guba's model as well as the Richardson and Blocker's four factors.

Getzels and Guba	Richardson & Blocker	Helwig
Principal's Role Expectations	Supervision	Principal-Teacher Relationships
Teacher's Needs-Dispositions	Self-Integration	Individual Teacher Ego Needs-Disposition
		Self-Integration
	Institutional Environment	
	Employment Rewards	

From the foregoing schema, then, the Helwig Factor I, Principal-Teacher Relationships, could readily be equated with Richardson and Blocker's Supervision factor, while the Helwig Factor II of Individual Teacher Ego Needs-Dispositions could be said to be similar to Richardson and Blocker's Self-Integration factor. In a similar manner, Helwig's Factor III, Self-Integration, equated with Richardson and Blocker's Self-Integration. Therefore, despite the tendency to now lump the two Helwig factors of Individual Teacher Ego Needs-Dispositions and Self-Integration under the one Richardson and Blocker factor of Self-Integration, the question as to whether one or two factors existed under the higher abstraction would have to await further field testing with additional samples. This effort will take place during the Fall of 1969. At this point in time, it was speculated that Halpin and Croft's division on their OCDQ of so-called teacher morale into Esprit and Intimacy may provide the clue to the emergence of two so-called morale factors. Esprit for Halpin and Croft referred to individual and individual teacher morale, while Intimacy referred to group and group teacher morale within the school building. Both of these dimensions were operationalized definitions on the OCDQ and therefore, each had an empirical base. Just why two such nearly identical factors appeared on the Helwig rotational solution requires further research.

Form D, a revised version of Form C, for field testing of the research findings derived thus far will be one aspect of research in the Fall of 1969. A entirely new form based more on the Richardson and Blocher factors also will be attempted. Finally, the esprit and intimacy subdimensions of the *OCDQ* will also be subjected to analysis. How? By having the individual teacher respondent complete Form D, another item scaled listing based on the Richardson and Blocher four factors, and the Halpin and Croft Esprit and Intimacy *OCDQ* subdimensions and then subjecting all these data to statistical analysis. Perhaps it can now also be said that the research herein was trying to deal with the reality of the phenomenon, teacher morale rather merely with the "standardization" of Wood's original *Teacher Satisfaction Scale*, as this investigator had been originally directed by his doctoral advisor. More will be said about this speculation about teacher morale; in the meantime, another discussion follows to demonstrate, this time the probable reality rather than unreality of the elusive phenomenon--teacher morale.

IV. The Esprit Subdimension on the *OCDQ* and the *TSS*.

In 1968 during the formulation of the Helwig dissertation, Helwig through Spearman rank correlation correlated the *OCDQ* esprit subdimension with the Form A version of the Wood *TSS*. After all, both instruments purported to measure the same phenomenon--teacher morale. By having each teacher respondent execute both instruments and then correlating by school the teacher esprit means and teacher satisfaction, a significant correlation should have been the result, it was hypothesized.

Table XV shows the results of this Spearman rank order correlation. The rho of .048 was not significant at the .05 level of acceptance. A rho of at least .3246 was needed to reach this level of acceptance on a one-tailed test. The Helwig sample represented an Ohio elementary school statewide teacher sample and was gathered in the Spring of 1968. After all, it was hypothesized, teacher morale was teacher morale, regardless of the grade level and regardless of geographical area. The rho correlation proved otherwise.

Helwig replicated this effort in a pilot study with his Virginia-Florida sample. The gathering of the data was now better controlled; the instruments were administered at faculty meetings and not gathered through the mails. Moreover, while the *OCDQ* esprit subdimension remained the same, teacher morale with the *TSS* was now being determined by Form C, not Form A. Was the former a "better" instrument?

Perhaps. Table XVI shows the results of the Spearman rank order correlation. A rho of .77 was significant not only at the .05 level of acceptance, but also at the .01 level of acceptance on a one-tailed test. Will a similar effort with a larger sample in Tidewater Virginia in the Fall of 1969 produce an identical significant result? Perhaps. At least from this last correlation, it can be tentatively concluded that both instruments are measuring the same phenomenon.

But is teacher morale a real phenomenon? The next section tries to speculate about operationalism in general. Besides trying to answer the question of the reality, if any, of teacher morale, a deeper research question also arises: does operationalism produce reality--reality in general as well as the supposed reality of the construct, teacher morale itself? The paradoxes of the high split-half correlations and the factorial analyses reported at the beginning of this report ought to be now recalled. They provide no certain answers.

IV. Is the Variable, Teacher Morale, a Real Conceptualization?

It is necessary, first, to distinguish between real and nominal, concepts in scientific measurement as well as it might be applied as a means toward ontology. Said DiRenzo:

> A real concept is necessarily true; it refers to ontological reality. ... A nominal concept, on the other hand, is neither true nor false necessarily. It is a purely synthetic formulation. Real definitions imply and refer to denotata - that is, to actuality; whereas nominal definitions refer to designata, which as such are only symbolic or representative. Thus, there is logically only one real definition - one real concept - for a given phenomenon; but there may be several nominal definitions, and reciprocal conceptions, for the same referent. If a definition is true, it corresponds to its concept, and is convertible simpliciter; the two are synonymous. Accordingly, real definitions and real concepts are synonymous; nominal definitions, not being necessarily true, are not synonymous with their conceptual referent. ...
>
> It is imperative to distinguish between the legitimate utility of a concept and its claims to truth; and the same distinction must be made for types of concepts. To make these distinctions we must first distinguish between substantive concepts - those which deal theoretically with the phenomena under investigation - and methodo - logical concepts - those which relate to the process of the investigation. ... Both types of concepts are necessary in the scientific process. Yet, their diverse functions must be respected; the penalty is simply self-defeat. Nominal concepts as a generic type have a clear edge in science. ... The question is whether there is any substantive reality that corresponds to them. Real concepts deal with ontological reality. Real concepts are 'found' or 'discovered' whereas nominal concepts are 'created' or 'invented'. Nominal concepts do not necessarily have any exact counterpart in reality.
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> They are, of course, quite legitimate as methodological concepts. When employed as substantive concepts in a theoretical context, however, their legitimacy becomes questionable; they are used beyond their explanatory limits. Substantive concepts serve

> no theoretical purpose unless they relate to reality. That is to say, they must involve a direct connection with empirical phenomena. Concepts with no empirical meaning can have no theoretical function. ... All types of concepts must lead eventually and ultimately to real concepts/definitions as the indispensable elements of substantive theory. To do this, science must go beyond the use of relative concepts, such as nominal and methodological ones, to those of an absolute nature - to theoretical ones, and therefore to real and substantive ones. ...
>
> Concepts must be productive of substantive theory. Otherwise, they are sterile. ... Our major argument here is directed against those who wish to confine theoretical analysis to the utilization of nominal concepts, such as (and more particularly) those exemplified by operational definitions. The operational approach, which emphasizes functionality at the expense of validity, has been influential in many quarters of the behavioral sciences. ... Yet, the difficulty here is that operational definitions do not exhaust the scientific - and therefore, true - meaning of a concept. Operational definitions are but means to the real definition of a phenomenon, and as such do not comprise the final step in the process of conceptualization. In an operational definition, the concept is synonymous with the corresponding set of operations employed. Such a definition thus necessitates only the specification of the set of operations that determine its application. In practices, however, where the operationalist discusses a new phenomenon, he devises a measurement and then defines the phenomenon as what is measured by his measurement.[30]

V. Nominal and Real Concepts and Scientific Explanation: Are Satisfaction on the *TSS* and Esprit on the *OCDQ* Nominal or Real Concepts?

Wood defined teacher satisfaction in operational terms as "the satisfaction of teachers as measured by the satisfaction questionnaire," the *TSS* (Form A).[31] As had been noted earlier, most of the enumerations on the *TSS* are from Anderson and Van Dyke.

Table I showed the teacher satisfaction means by school for both the Wood and the Helwig sample consisting of 310 teachers in the former and 291 teachers in the latter, the data in both instances obtained with Form A. The parametric standard error of the difference between two means for uncorrelated data with a z test for testing the difference between these two means seemed to be the appropriate statistics for the data to be analyzed. The two means under consideration were the two grand means for teacher satisfaction as measured by Form A for the Wood 31 and the Helwig 37 school samples. While the former sample contained both secondary and elementary teachers and Helwig sample elementary teachers only, for analysis here, the population was conceived as teachers in general and the parameter as teacher satisfaction as measured in both samples by Form A. Table I presents the relevant data. The standard error of difference between the two satisfaction means was .1153 with an obtained z of 3.99. Under the normal curve table, this is significant well beyond the .001 level of acceptance on a one-tailed test. Therefore, teacher satisfaction as operationalized on Form A and from the data obtained through the two samples, Form A was measuring something, in all probability, teacher satisfaction as operationally conceptualized by Wood.

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[30] Gordon J. DiRenzo, "Toward Explanation in the Behavioral Sciences" in *Concepts, Theory, and Explanation in the Behavioral Sciences*. Gordon J. DiRenzo ed. (New York: Random House, 1966), pp. 268-271.

[31] Wood, *op. cit.*, p. 13.

Continuing with DiRenzo:

> The operationalist, therefore, defines concepts in terms of measuring operations by which he arrives at the _explicandum_. But is it possible to measure that which has not yet been defined or described? An operational definition simply implies that the set of operations is the concept. It defines in terms of methodology and not ontology. It is not possible, however, to measure that which has not yet been defined or described.[32] ...
>
> Nominal concepts, as methodological concepts, are given at the outset of the research process. ... Real concepts are not given at the outset of inquiry; they result only from empirical investigation of the phenomena question. As Bierstedt points out: 'It is necessary to rely upon investigation itself in order to determine whether or not the properties the definition ascribes to the concept actually do belong to it, whether to put it bluntly, the _definiens_ does in fact define the definiendum, _whether_ in short, the definition is true.' ... Scientific explanation cannot terminate at the descriptive level of nominal concepts. ... They must have empirical, and not merely rational, implications. Reification of our conceptual/theoretical abstractions is a major scientific hazard in the process of conceptualizations. ... Concepts with no empirical meaning can serve no explanatory function. The ultimate goal of all scientific inquiry is to produce substantive theory - a theory which is propositional and whose propositions are assertions about reality. Only a conceptual scheme that is constituted of real concepts - those that have referents in the empirical world - can produce substantive theory.[33]

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[32] DiRenzo, _op_. _cit_., p. 270.

[33] DiRenzo, _op_. _cit_., pp. 273-275.

It is asserted here that teacher satisfaction as conceptualized by Wood on Form A was a nominal and not a real concept. Perhaps even with the possible improvements derived through Forms B and C, teacher satisfaction or morale still might be a nominal rather than a real concept.

Zetterberg pointed to the fallacy of nominal definition through an enumeration as "a suggestion to name a phenomenon in a given way without implying anything about the scientific propositions relating to this phenomenon." An enumeration may give "easy directions for empirical references to a concept," but lead, however, to two immediate fallacies: the enumerated factors may not be empirically related nor may they have any conceptual attribute in common.

Rather than defining a concept nominally by enumeration (as has been done on Form A), Zetterberg suggested instead conceptual definition through the conventional Aristotelian method of *genus proximum* and *differentia specifica* or dispositionally, that is, operationally.[34]

The subdimension esprit on Halpin and Croft's *OCDQ* seemed to meet such a dispositional criterion. On their own three-factor varimax rotational solution for their seventy-one elementary school teacher sample of 1,151 teachers, Halpin and Croft obtained a factor loading of .78 for their esprit (morale) subdimension. They further identified esprit as a group, not individual or leader, factor in their own formulation.[35] Dispositionally (or operationally) then, morale for the Helwig dissertation was defined as a function of a faculty's task achievement and social needs satisfaction as measured by the esprit subtest of the *OCDQ*.[36] In short, there seemed to be a better dispositional or operational definition on the *OCDQ* for esprit or morale than whatever Wood's *Teacher Satisfaction Scale* was seeking to measure by enumeration under the concept of teacher satisfaction with Form A.

Were the esprit *OCDQ* subdimension as well as the seven other subdimensions and the six prototypic organizational climates under the Halpin and Croft delineations nominal or real concepts? Probably nominal for Halpin said:

> In a genuine sense we did not discover these organizational climates; we invented them. This notion of scientific inquiry as a method of invention rather than discovery runs counter to many commonly accepted ideas about the scientific process. ... In scientific inquiry, we first must observe the event or events as carefully as possible and then, and only

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[34] Hans L. Zetterberg, "*On Theory and Verification in Sociology*," 3rd ed., (Totowa, New Jersey: The Bedminster Press, 1965), pp. 40-43.

[35] Zetterberg, *op*. *cit*., p. 42.

[36] Halpin, *op*. *cit*., pp. 160-162.

> then, should we venture to name these events. We wanted first to observe the behavior that defined organizational climates and were willing to name these climates only after we had analyzed the specific behaviors. In short, we were committed to an inductive, empirical approach. ... However, the final test of the concepts that we have invented must be heuristic. Do the concepts that we have chosen to describe our domain of inquiry permit us to describe the events of this domain more 'usefully' than we could describe these events without the benefit of the particular concepts which we have created.[37]

VI. The Residual Problems in This Entire Research, Including the Helwig Dissertation.

Continuing with DiRenzo:

> The validity of a theoretical system, and its conceptual apparatus, is obtained by means of empirical confirmation. Such verification requires an empirical correspondence, which is achieved with the success of the entire explanatory scheme and with its consistency. Empirical confirmation alone is sufficient evidence of the reality of the phenomena under investigation (particularly regarding the latent property space and its structure) and of the validity of the explanatory scheme. Nobody has ever seen an attitude or a value, just as nobody has ever seen an atom or an electron; yet these concepts do 'work' theoretically as explanatory elements of the empirical phenomena to which they relate. They work not so much because of the intrinsic logic which they provide, but rather because their validity has been confirmed empirically by means of successfully predicted phenomena. ...[38]
>
> Concepts, theory, models, measuring techniques - in short, both the conceptual and methodological apparatus - need to be validated. All too often much of this just does not take place. ... Measurement is indispensable for empirical verification, and verification is the _sin qua non_ for scientific validity.[39]

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[37] Halpin, _op. cit._, pp. 130-145, _passim_. This whole section between pp. 130-145 needs to be read for Halpin and Croft's versions of "scientific discovery through scientific invention." It does not conflict with DiRenzo's views in general although there is a direct conflict in what DiRenzo was quoted above as saying that "real concepts are found or discovered whereas nominal concepts are created or invented." Halpin and Croft with their six OCDQ prototypic climates admitted to invention, not discovery,as the first step, but also admit to the heuristic nature of their early prototypic organizational climate "inventions."

[38] DiRenzo, _op. cit._, pp. 276-277.

[39] _Ibid._, p. 279.

From all that has been said in this report, including the statistical evidence, what are the residual problems which the final quarter allowed under this grant must try to resolve or to answer?

1. Is there such a phenomenon as teacher morale or is it entirely a psychic individual emotional state irreducible to scientific measurement and reality? The cited related literature and the inquiry herein have produced mixed results and ambivalence. Richardson and Blocher, Anderson and Van Dyke, Wood, and Halpin and Croft each had their own notions about what teacher morale might be--in operational terms, it seemed. None denied the possibility of the non-existence of the phenomenon. The split-half reliability coefficients, although high with Forms A, B, and C, seemed to point to operationalism, that is to nominal concepts. The factorial analyses did not seem to support the "existence" of underlying factors which could with confidence name the higher abstract, namely, teacher morale. The statistical results shown in Tables I - VI, XIV and XV produced mixed results.

Nevertheless, in the forthcoming final quarter, Form D of the TMS will be field tested. In addition, an entirely new form utilizing Richardson and Blocher's four factors will be devised to field test their concept of teacher morale. Finally, the OCDQ Esprit and Intimacy subdimensions will also be subjected to further analyses. By having the same respondent complete these three instruments and subjecting them to computer analysis, perhaps a sound probable determination can be made about the "reality existence" of the variable, teacher morale. Form D, moreover, should put the Getzels and Guba theoretical model to empirical test again. Then this formulation, the Richardson and Blocher formulation and the Halpin and Croft formulations should lend themselves to significant correlations.

2. Then the related question also might perhaps be answered: are Settesbury and DiRenzo correct in saying that most researchers are dealing with nominal and not real concepts? The evidence thus far herein indicates that nominalism, not realism, is operative among the various researchers cited.

TABLE I

*DATA FOR STANDARD ERROR OF THE DIFFERENCE BETWEEN TWO MEANS FOR UNCORRELATED DATA: THE WOOD AND HELWIG SAMPLES AS MEASURED BY THE WOOD TSS.

Helwig Sample

School	TSS Means
102	5.90
103	5.47
104	5.50
105	5.80
106	5.87
107	5.28
108	5.29
109	5.31
111	4.84
113	4.93
114	5.56
115	5.57
116	3.71
117	5.76
118	3.83
119	5.52
120	5.10
121	5.60
122	5.98
125	5.62
126	5.88
127	4.88
129	5.26
131	6.03
132	5.54
133	5.64
134	6.10
135	5.76
136	5.21
139	5.57
140	5.52
141	4.97
143	5.77
144	5.18
147	5.50
148	5.94
150	5.71
N=37	X_1=201.15

Wood Sample

School	TSS Means
1	5.6
2	5.0
3	4.6
4	4.7
5	4.7
6	4.9
7	4.8
8	5.2
9	5.3
10	5.2
11	4.8
12	5.3
13	5.3
14	4.8
15	5.2
16	5.3
17	4.7
18	4.9
19	5.6
20	5.3
21	4.5
22	5.3
23	4.6
24	3.9
25	4.8
26	4.7
27	6.0
28	5.3
29	5.3
30	4.6
31	4.2
N=31	X_2=154.4

X_1=4.98 S_1=.43

X_2=5.44 S_2=.51

S_{D_X}=.1153 Z=3.9979 and is significant at the .001 level of acceptance on a one-tailed test.

TABLE I (CONTINUED)

X_1 is a grand mean representing the degree of teacher satisfaction among 310 elementary school teachers in 37 Ohio schools in 1960.

X_2 is a grand mean representing the degree of teacher satisfaction among 291 elementary and secondary teachers in 31 Overseas Dependents' School, European Area in 1965.

*N.M. Downie and R.W. Heath, Basic Statistical Methods 2nd edition (New York: Harper and Row, 1965), pp. 132-133.

TABLE II

SPEARMAN RANK CORRELATION OF OCDQ ESPRIT MEANS AND TEACHER SATISFACTION SCALE MEANS

School	Esprit Means	TSS Means
102	36	5.06
103	56	3.47
104	42	3.50
105	37	5.00
106	44	3.47
107	37	5.24
108	46	5.29
109	61	5.31
111	41	4.64
113	52	4.90
114	48	5.56
115	49	3.57
116	50	3.71
117	51	5.76
118	36	2.93
119	37	5.52
120	38	5.13
121	47	5.61
122	42	5.98
123	36	3.62
126	58	5.66
127	61	4.98
129	43	5.30
131	56	6.03
132	47	5.54
133	32	5.64
134	51	4.18
135	37	5.76
136	52	3.21
139	38	3.17
140	33	5.72
141	47	4.97
143	56	5.77
144	35	3.18
147	51	5.33
148	47	5.14
150	32	5.71

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*r_s (rho) = .041 df=35 $r_=$ .3246 at P .05 and thus not significant at .05 level of acceptance.

*N.M. Downie and R.W. Heath, Basic Statistical Methods (New York: Harper and Row, 1965), pp. 156, pp. 206-226, p. 306.

TABLE III

SPEARMAN RANK CORRELATION OF FREQUENCY OF TOTAL PRINCIPAL-TEACHER COMMUNICATIONS AND ESPRIT MEANS

School	Frequency of Total Principal-Teacher Communications	OCDQ Esprit Means
102	56	36
103	147	56
104	347	42
105	179	37
106	132	44
107	29	37
108	161	46
109	454	41
111	127	41
113	503	52
114	325	48
115	170	49
116	140	50
117	95	51
118	213	36
119	180	57
120	131	38
121	51	47
122	210	42
125	222	36
126	110	54
127	23	40
128	101	43
131	311	56
132	122	47
133	93	32
134	138	55
135	151	37
136	130	52
138	460	35
140	71	33
141	73	47
143	237	58
144	91	35
147	701	51
148	63	47
150	272	32
N=37		

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r_s (rho) = .21 df=35* r_s = .3246 at P .05 and thus r_s of .21 not significant at .05 level of acceptance

*N.M Downie and R.W. Heath, Basic Statistical Methods (New York: Harper and Row, 1965), p. 156, pp. 206-207, p. 306.

TABLE IV

SPEARMAN RANK CORRELATION OF FREQUENCY OF TOTAL PRINCIPAL-TEACHER COMMUNICATIONS AND TEACHER SATISFACTION MEANS

School	Frequency of Total Principal-Teacher Communications	TSS Means
102	56	5.90
103	147	5.47
104	367	5.50
105	179	5.80
106	132	5.67
107	29	5.28
108	161	5.29
109	454	5.31
111	127	4.64
113	503	4.90
114	325	5.56
115	170	5.57
116	160	5.71
117	95	5.76
118	253	5.93
119	185	5.52
120	131	5.19
121	51	5.60
122	200	5.98
125	222	5.62
126	180	5.88
127	29	4.90
129	101	5.36
131	311	6.03
132	132	5.54
133	99	5.64
134	138	6.10
135	151	5.76
137	129	5.21
139	460	5.57
140	71	5.72
141	73	4.97
143	237	5.77
144	91	5.18
147	708	5.50
148	503	5.94
150	232	5.71
N=37		

r_s (rho) = .04 df=35* r_s .3246 at P .05 and thus r_s of .04 not significant at .05 level of acceptance.

*N.M. Downie and R.W. Heath, Basic Statistical Methods (New York: Harper and Row, 1965), p. 131, pp. 206-207, p. 306.

TABLE V

SPEARMAN RANK CORRELATIONS OF FREQUENCY OF TOTAL PRINCIPAL DOWNWARD COMMUNICATIONS TO FACULTY WITH ESPRIT MEANS ON THE OCDQ AND MEANS OF TEACHER SATISFACTION ON THE TSS

School	Frequency of Principal Downward Communications	Esprit Means	TSS Means
102	47	36	5.90
103	53	56	5.47
104	150	42	5.50
105	141	37	5.80
106	82	44	5.67
107	25	37	5.28
108	84	46	5.29
109	256	61	5.31
111	92	41	4.64
113	310	52	4.90
114	247	48	5.56
115	126	49	5.57
116	77	50	3.71
117	49	51	5.76
118	181	36	3.93
119	133	57	5.52
120	57	30	5.19
121	38	47	5.60
122	156	42	5.98
125	124	36	5.62
126	168	54	5.88
127	56	40	4.98
129	61	43	5.36
131	185	56	6.03
132	103	42	5.54
133	62	32	5.64
134	91	55	6.10
135	112	37	5.76
136	115	52	5.21
139	204	33	5.57
140	24	33	5.72
141	17	47	4.97
143	116	58	5.77
144	76	35	5.18
147	490	51	5.59
148	50	47	5.94
150	122	32	5.71
N=37		*r_s=.278	*r_s=.057

With df = 35, r_s must be equal to or greater than .3246 at P .05 and thus neither r_s of .278 nor r_s of .057 significant at .05 level of acceptance.

*N.M. Downie and R.W. Heath, Basic Statistical Methods (New York: Harper and Row, 1965), p. 156, pp. 206-208, p. 306.

TABLE VI

SPEARMAN RANK CORRELATIONS OF FREQUENCY OF TOTAL TEACHER UPWARD COMMUNICATIONS TO THE PRINCIPAL WITH ESPRIT MEANS ON THE OCDQ AND MEANS OF TEACHER SATISFACTION ON THE TSS

School	Teacher Upward Communications	Esprit Means	TSS Means
102	9	36	5.90
103	94	56	5.47
104	189	42	5.50
105	38	37	5.80
106	50	44	5.67
107	4	37	5.28
108	77	44	5.29
109	198	61	5.31
111	35	41	4.64
113	153	52	4.90
114	79	48	5.56
115	44	49	5.57
116	63	50	3.71
117	46	51	5.76
118	72	36	3.93
119	56	57	5.52
120	64	38	5.19
121	13	47	5.60
122	44	42	5.98
125	98	36	5.62
126	20	54	5.48
127	39	40	4.98
129	40	43	5.36
131	126	56	6.03
132	29	42	5.54
133	37	32	5.64
134	47	55	6.10
135	39	37	5.76
136	24	52	5.21
139	176	39	5.37
140	47	33	5.72
141	56	47	4.97
143	121	58	5.77
144	15	35	5.18
147	218	51	5.59
148	39	47	5.94
150	110	32	5.71
N=37		*r_s = .308	*r_s = .082

With df = 35 r_s must be equal to or greater than .3246 at P .05 and thus neither r_s of .308 nor r_s of -.082 significant at .05 level of acceptance.

*N.M. Downie and R.W. Heath, Basic Statistical Methods (New York: Harper and Row, 1965), p. 156, pp. 206-208, p. 306.

TABLE VII

SPLIT-HALF RELIABILITY COEFFICIENTS OF FORMS A, B AND C, TEACHER SATISFACTION SCALE.[1]

Form A: Ohio Elementary School	Teacher Sample	N_t=29	r_t=.90
Form B: Virginia Sample by School	Aragona Elementary	N = 29	r_t = .78
	Princess Anne H.S.	N = 42	r_t = .71
	Bayside H.S.	N = 51	r_t = .88
	First Colonial H.S.	N = 63	r_t = .87
	Kellam H.S.	N = 48	r_t = .84
Form C:	Virginia-Florida Sample	N = 378	r_t = .92
	Yates, Stuart and Brookwood Elementary Schools	N = 74	r_t = .99
	Yates Elementary	N = 22	r_t = .85
	Brookwood Elementary	N = 24	r_t = .95
	Stuart Elementary	N = 28	r_t = .96

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[1] The Spearman-Brown prophecy formula was applied in the computation of all reliability coefficients. P is .01 in all instances. All reliability coefficients are odd-even item coefficients except for Yates, Brookwood, and Stuart Elementary Schools. These last three are odd-even respondent reliability coefficients. ~~as well as~~ The following schools provided the Virginia-Florida teacher sample: Churchland High School and Water Junior High School, Portsmouth, Virginia; Rosemont Junior High School and Taylor Elementary School, Norfolk, Virginia; Princess Anne, Kempsville, Bayside and Kellan High Schools, Virginia Beach, Virginia; and Pensacola Christian School (K-12), Pensacola, Florida.

TABLE VIII

TWO FACTOR VARIMAX ROTATIONAL SOLUTION OF FORM A FOR TOTAL OHIO TEACHER SAMPLE
(N = 310)

Teacher Satisfaction Scale Items (Form A)	Individual Social Needs I	Interpersonal Relationships II	h^2
1. Utilization of your talents and sense of achievement.	.44	.63	.60
2. The success of the principal in working with teachers.	.80	.14	.66
3. Your relationships in working with other faculty members.	.47	.58	.55
4. Agreement on purposes (overall faculty agreement on the purposes of the educational program).	.71	.34	.63
5. Cooperative determination of policy.	.72	.35	.64
6. Your relationships and acceptance in the community.	.29	.70	.58
7. School policy on sick leave and concern for the health of teachers.	.59	.13	.38
8. Interest of your principal in your economic security.	.72	.15	.56
9. Your relationships with your students.	.08	.88	.78
10. Your estimate of your progress in the fulfilling the objectives of your classes	.17	.85	.76
Eigen Value	4.87	1.28	
Per Cent of Variance	.48	.13	= .61

TABLE IX

FOUR FACTOR VARIMAX ROTATIONAL SOLUTION OF FORM B FOR VIRGINIA SAMPLE
(N = 233)

Teacher Satisfaction Scale (Form B)	I	II	III	IV	*h^2
1. The principal's use of my teacher talents is ___.	.80	.23	-.04	-.19	.74
2. My own personal sense of achievement at this school is ___.	.71	.04	-.09	-.53	.80
3. The principal's success in working with me as a teacher is ___.	.67	-.08	.54	.14	.78
4. My own relationships with other teachers in this school is ___.	.03	.001	.92	.01	.85
5. My personal agreement with the educational goals of the curriculum in the school is ___.	.63	.34	.26	-.17	.62
6. The cooperative determination of policy in this school by the principal and the teachers is ___.	.85	.05	.13	.08	.74
7. My own community relationships are ___.	.38	.31	-.10	-.67	.70
8. The school policy on sick leave is ___.	.04	.30	-.004	.88	.88
9. The principal's concern for my health is ___.	.17	.59	.05	.64	.80
10. The school policy on personal leave is ___.	.01	.07	-.14	.90	.87
11. The principal's concern for my own economic security is ___.	.28	.82	.22	-.24	.86

*According to Halpin, high communalities (h^2's) on his individual subtests were indicators of high reliability. See A.W. Halpin, Theory and Research in Administration (New York: The Macmillan Company, 1966), pp. 150-161. Here, as in the other tables which follow, individual items, not individual subtests, were rotated, but according to Kerlinger, this should make no difference: "Items of a single test can be factored, however. Persons or the responses of persons, can also be factored. In other words, the variables entered into the correlation and factor matrices can be tests, scales, items, persons, concepts, or whatever can be intercorrelated in some way." See F.N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1966), p. 671.

TABLE X

FOUR FACTOR VARIMAX ROTATIONAL SOLUTION OF FORM C FOR TOTAL VIRGINIA-FLORIDA SAMPLE
(N = 378)

Teacher Satisfaction Scale Items (Form C)	I	II	III	IV	h^2
1. The principal use of my teacher talent is ___.	.62	.33	.24	.01	.55
2. My own personal achievement at this school is ___.	.28	.73	.22	-.04	.67
3. The principal's success in working with me as a teacher is ___.	.75	.15	.24	.08	.65
4. My personal agreement with the educational goals of the curriculum is ___.	.30	.24	.70	.11	.64
5. The cooperative determination of policy in this school by the principal and the teachers is ___.	.48	.10	.64	.08	.66
6. The principal's interest in me as a human being is ___.	.77	-.12	.25	.23	.73
7. My personal relationship with other teachers in this school is ___.	.20	.12	.05	.65	.48
8. The personal relationships among the teachers and the principal in this school is ___.	.68	-.16	.26	.27	.62
9. The casual relationship between the principal and me is ___.	.71	-.05	.20	.21	.60
10. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ___.	.68	.15	.09	.26	.56
11. Whenever a parent criticizes me to the principal, my admiration for the principal is ___.	.58	.20	.13	.29	.47
12. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ___.	.53	.29	-.26	.43	.61
13. Whenever I ask for time off the principal's reaction to it is ___.	.67	.24	-.23	.12	.57
14. My success as a teacher with my pupils is ___.	.02	.82	.06	.15	.71
15. My personal friendship with my pupils is ___.	-.03	.72	.04	.22	.57
16. My desire to continue at this school on an indefinite basis is ___.	.48	.46	.16	.09	.49

TABLE X (CONTINUED)

Teacher Satisfaction Scale Items (Form C)	I	II	III	IV	h^2
17. The principal's handling of pupil disciplinary problems referred to him by me is ___.	.32	.07	.35	.55	.53
18. The performance of the guidance counselors in relation to my pupils is ___.	.24	.12	.10	.68	.54
19. As a general statement, the socio-economic background of my pupils at this school to me is ___.	-.04	.13	.37	.40	.33
Eigenvalue	6.83	1.94	1.28	1.04	
Per Cent of Variance	.36	.10	.07	.05 =	.58

TABLE XX

COMPARISONS OF ROTATIONAL SOLUTIONS ON FACTOR I, FORM C BY SAMPLE

Teacher Satisfaction Scale Item (Form C)	Virginia-Florida Sample (N=378)	Yates Elementary School (N = 28)	Brookwood Elementary School (N=24)	J.B. Stuart Elementary School (N=21)
1. The principal's use of my teacher talents is ___.	.62	.73	.38	.72
2. My own personal sense of achievement at this school is ___.	.28	.75	.26	.59
3. The principal's success in working with me as a teacher is ___.	.73	.76	.43	.60
4. My personal agreement with the educational goals of the curriculum in this school is ___.	.30	-.28	.49	.55
5. The cooperative determination of policy in this school by the principal and the teachers is ___.	.48	-.29	.03	.59
6. The principal's personal interest in me as a human being is ___.	.77	.30	.69	.65
7. My personal relationship with the other teachers in this school is ___.	.20	.18	.24	-.06
8. The personal relationships among the teachers and the principal in this school is ___.	.68	.51	.67	.60
9. The casual relationship between the principal and me is ___.	.71	.72	.75	.02
10. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ___.	.68	.50	.70	.90
11. Whenever a parent criticizes me to the principal, my admiration for the principal is ___.	.58	.13	.75	.78
12. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ___.	.53	-.03	.18	.73
13. Whenever I ask for time off, the principal's reaction to it is ___.	.67	.19	-.04	.85

TABLE XI (CONTINUED)

Teacher Satisfaction Scale Item (Form C)	Virginia-Florida Sample (N=378)	Yates Elementary School (N=20)	Brookwood Elementary School (N=24)	J.D. Stuart Elementary School (N=26)
14. My success with my pupils as a teacher is ___.	.02	.37	-.09	.29
15. My personal friendship with my pupils is ___.	-.03	.42	.25	.02
16. My desire to continue at this school on an indefinite basis is ___.	.48	.23	.59	.57
17. The principal's handling of pupil disciplinary problems referred to him by me is ___.	.33	.23	.60	.74
18. The performance of the guidance counselors at this school in relation to my pupils is ___.	.23	not used	not used	not used
19. As a general statement, the socio-economic background of my pupils at this school to me is ___.	-.03	.13	.26	.07

Item 18 not used at the elementary school level for no guidance counselors available at these schools.

TABLE XII

COMPARISONS OF ROTATIONAL SOLUTIONS ON FACTOR II, FORM C BY SAMPLE

Teacher Satisfaction Scale Item (Form C)	Virginia-Florida Sample (N=270)	Yates Elementary School (N=23)	Brookwood Elementary School (N=24)	J. D. Stuart Elementary School (N=26)
1. The principal's use of my teacher talents is ___.	.33	.28	-.32	.44
2. My own personal sense of achievement at this school is ___.	.73	.30	.40	.45
3. The principal's success in working with me as a teacher is ___.	.15	-.07	-.33	.39
4. My personal agreement with the educational goals of the curriculum in this school is ___.	.24	.43	-.002	-.08
5. The cooperative determination of policy in this school by the principal and the teachers is ___.	.30	-.15	.02	.11
6. The principal's personal interest in me as a human being is ___.	-.12	.13	.20	.08
7. My personal relationships with the other teachers in this school is ___.	.12	.08	.03	.17
8. The personal relationships among the teachers and the principal in this school is ___.	-.16	.13	.01	.02
9. The casual relationship between the principal and me is ___.	-.03	.02	.08	-.07
10. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ___.	.16	.33	-.01	.06
11. Whenever a parent criticizes me to the principal, my admiration for the principal is ___.	.20	.73	-.23	.17
12. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ___.	.29	.84	-.20	.27
13. Whenever I ask for time off, the principal's reaction to it is ___.	.24	.27	.22	.08

TABLE XII (CONTINUED)

Teacher Satisfaction Scale Item (Form C)	Virginia-Florida Sample (N=370)	Tates Elementary School (N=27)	Brookwood Elementary School (N=24)	J. D. Stuart Elementary School (N=26)
14. My success with my pupils as a teacher is ___.	.82	.34	.90	.84
15. My personal friendship with my pupils is ___.	.73	.60	.83	.91
16. My desire to continue on an indefinite basis at this school is ___.	.45	.71	.83	.30
17. The principal's handling of pupil disciplinary problems referred to him by me is ___.	.07	.13	-.14	-.01
18. The performance of the guidance counselors at this school in relation to my pupils is ___.	.12	not used	not used	not used
19. As a general statement, the socio-economic background of my pupils at this school to me is ___.	.12	.16	.06	.26

Item 18 not used at the elementary school level for no guidance counselors available at these schools.

TABLE XIII

COMPARISONS OF ROTATIONAL SOLUTIONS ON FACTOR III, FORM C BY SAMPLE

Teacher Satisfaction Scale Item (Form C)	Virginia-Florida Sample (N=372)	Yates Elementary School (N=23)	Brookwood Elementary School (N=24)	J. E. B. Stuart Elementary School (N=26)
1. The principal use of my teacher talents is ___.	.23	-.07	-.12	-.06
2. My own personal sense of achievement at this school is ___.	.22	-.30	-.17	.60
3. The principal's success in working with me as a teacher is ___.	.24	.12	-.12	.66
4. My personal agreement with the educational goals of the curriculum in this school is ___.	.70	.20	-.31	.60
5. The cooperative determination of policy in this school by the principal and the teachers is ___.	.64	-.54	.04	.64
6. The principal's personal interest in me as a human being is ___.	.25	.03	-.11	.62
7. My personal relationships with the other teachers in this school is ___.	.49	-.53	-.76	.03
8. The personal relationships among the teachers and the principal in this school is ___.	.26	-.23	-.74	.56
9. The casual relationship between the principal and me is ___.	.20	-.17	-.20	.80
10. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ___.	.09	.07	-.27	.12
11. Whenever a parent criticizes me to the principal, my admiration for the principal is ___.	.13	.11	.12	.19

TABLE XIII (CONTINUED)

Teacher Satisfaction Scale Item (Form C)	Virginia-Florida Sample (N=378)	Yates Elementary School (N=20)	Brookwood Elementary School (N=24)	J.B. Stuart Elementary School (N=26)
12. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ___.	-.26	-.22	-.16	.27
13. Whenever I ask for time off, the principal's reaction to it is ___.	-.23	-.74	.19	.10
14. My success with my pupils as a teacher is ___.	.07	.12	-.02	.25
15. My personal friendship with my pupils is ___.	.04	-.60	.003	-.07
16. My desire to continue on an indefinite basis at this school is ___.	.18	.10	-.38	.34
17. The principal's handling of pupil disciplinary problems referred to him by me is ___.	.35	-.24	-.39	.33
18. The performance of the guidance counselors at this school in relation to my pupils is ___.	.18	not used	not used	not used
19. As a general statement, the socio-economic background of my pupils at this school to me is ___.	.57	.86	.84	.71

Item 18 not used at elementary school level for no guidance counselors available at these schools.

TABLE XIV

COMPARISONS OF ROTATIONAL SOLUTIONS ON FACTOR IV, FORM C BY SAMPLE

Teacher Satisfaction Scale Item (Form C)	Virginia-Florida Sample (N=378)	Yates Elementary School (N=20)	Brookwood Elementary School (N=24)	J. B. Stuart Elementary School (N=25)
1. The principal's use of my teacher talents is ___.	.01	.10	-.52	.23
2. My own personal sense of achievement at this school is ___.	-.04	.06	-.63	-.11
3. The principal's success in working with me as a teacher is ___.	.08	.39	-.60	.17
4. My personal agreement with the educational goals of the curriculum in this school is ___.	.11	.64	-.56	-.07
5. The cooperative determination of policy in this school by the principal and the teachers is ___.	.08	.60	-.16	.06
6. The principal's personal interest in me as a human being is ___.	.24	.77	-.03	.09
7. My personal relationships with the other teachers in this school is ___.	.65	.24	-.29	-.95
8. The personal relationships among the teachers and the principal in this school is ___.	.27	.62	-.31	-.21
9. The casual relationship between the principal and me is ___.	.21	.90	-.28	-.11
10. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ___.	.26	.65	-.23	-.04
11. Whenever a parent criticizes me to the principal, my admiration for the principal is ___.	.29	.01	-.09	-.05
12. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ___.	.43	.28	-.82	.14

TABLE XIV (CONTINUED)

Teacher Satisfaction Scale Item (Form C)	Virginia-Florida Sample (N=378)	Yates Elementary School (N=20)	Brookwood Elementary School (N=24)	J. B. Stuart Elementary School (N=26)
13. Whenever I ask for time off, the principal's reaction to it is ___.	.12	.31	-.80	.08
14. My success with my pupils as a teacher is ___.	.15	.16	.12	-.002
15. My personal friendship with my pupils is ___.	.22	-.12	-.13	-.21
16. My desire to continue at this school on an indefinite basis is ___.	.86	.39	-.38	.15
17. The principal's handling of pupil disciplinary problems referred to him by me is ___.	.55	.79	-.08	-.04
18. The performance of the guidance counselors at this school in relation to my pupils is ___.	.68	not used	not used	not used
19. As a general statement, the socio-economic background of my pupils at this school to me is ___.	.40	.15	-.30	.06

Item 18 is not used at the elementary level for no guidance counselors available at these schools.

TABLE XV

SPEARMAN RANK CORRELATION BY SCHOOL OF THE OCDQ ESPRIT MEANS AND FORM A, TSS MEANS, OHIO SAMPLE

School	Esprit Mean	TSS Mean
102	36	5.90
103	56	5.47
104	42	5.50
105	37	5.80
106	44	5.67
107	37	5.28
108	44	5.29
109	61	5.31
111	41	4.64
113	52	4.90
114	48	5.56
115	49	5.57
116	50	5.71
117	51	5.76
118	36	5.93
119	57	5.52
120	38	5.19
121	47	5.60
122	42	5.98
125	36	5.62
126	54	5.88
127	40	4.98
129	43	5.36
131	56	6.03
132	47	5.54
133	32	5.64
134	55	6.10
135	37	5.76
136	52	5.21
139	39	5.57
140	33	5.72
141	47	4.97
143	58	5.77
144	35	5.18
147	51	5.59
148	47	5.94
150	32	5.71

N=37 Rho=.048 With 35 degrees of freedom, the rho must be .3246 or greater at .05 level of acceptance. Therefore, the rho of .048 is not significant at the .05 level.

TABLE XVI

SPEARMAN RANK CORRELATION BY SCHOOL OF THE OCDQ ESPRIT MEANS WITH FORM C, TSS MEANS, VIRGINIA-FLORIDA SAMPLE

School	TSS Means	Esprit Mean
Yates Elementary	4.19	54
Brookwood Elementary	3.72	41
Waters Jr. High	3.79	48
Churchland Sr. High	3.73	42
Princess Anne Sr. High	3.81	38
Kempsville Sr. High	3.45	37
Rosemont Jr. High	3.97	44
Pensacola Christian (K-12)	3.88	49
Bayside Sr. High	3.41	42
Aragona Elementary	4.40	54
First Colonial Sr. High	4.10	44

N=11 Rho=.770. A rho of .564 or higher is needed at the .05 level of acceptance. A rho of .712 is needed at the .01 level of acceptance. Both on a one-tailed test. The rho of .770 therefore is significant at the .01 level of acceptance.

PRINCIPAL'S DATA SHEET

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QUESTIONNAIRE ITEMS

NUMBER OF COMMUNICATIONS

1. Written principal-initiated memos to faculty members (short written informal notes to teachers)

Coordination of school program ______
Building and room maintenance ______
Curriculum Development ______
Instructional materials ______
Parental conference ______
Professional organizations ______
Student affairs (other than discipline) ______
Student discipline ______
Teaching assignment ______
Testing program ______
Other ______
Total ______

Per cent of faculty receiving memos in the previous 20 day period (Divide total number of teachers receiving memos by your total number of faculty members.) ______

2. Written principal-initiated bulletins to faculty members (Duplicated materials prepared by the principal distributed to groups or to all faculty members)

Coordination of school program ______
Building and room maintenance ______
Curriculum development ______
Instructional materials ______
Parental conference ______
Professional organization ______
Student affairs (other than discipline) ______
Student discipline ______
Teaching assignment ______
Testing program ______
Other ______
Total ______

Per cent of faculty receiving bulletins in the previous 20 day period (divide total number of teachers receiving bulletins by your total number of faculty members) ______

NUMBER OF
COMMUNICATIONS

3. Written teacher-initiated memos to the principal (short written informal notes from teachers

Coordination of school program ____
Building and room maintenance ____
Curriculum development ____
Instructional materials ____
Parental conference ____
Professional organization ____
Student affairs (other than discipline) ____
Student discipline ____
Teacher assignment ____
Testing program ____
Other ____
Total ____

Per cent of faculty sending memos to the principal previous 20 day period (divide total number of teachers sending memos by your total number of faculty members.) ____

4. Oral principal-initiated communication to faculty groups (include all but communications of greetings.)

Coordination of school program ____
Building and room maintenance ____
Curriculum development ____
Instructional materials ____
Parental conference ____
Professional organization ____
Student affairs (other than discipline) ____
Student discipline ____
Teaching assignment ____
Testing program ____
Other ____
Total ____

Per cent of faculty attending oral principal-initiated communication to faculty groups (divide total number of teachers in attendance by your total number of faculty members.) ____

5. Oral principal-initiated communication through individual teacher conferences (include all conferences whether planned or unplanned.)

Coordination of school program ____
Building and room maintenance ____
Curriculum development ____

	NUMBER OF COMMUNICATIONS
Instructional materials	______
Parental conference	______
Professional organization	______
Student affairs (other than discipline)	______
Student discipline	______
Teaching assignment	______
Testing program	______
Other	______
Total	______

Per cent of faculty contacted for individual conference with the principal in the previous 20 day period (divide total number of teachers contacted by your total number of faculty members.) ______

6. Oral teacher-initiated communication through individual conference with the principal (include all conferences whether planned or unplanned.)

Coordination of school program	______
Building and room maintenance	______
Curriculum development	______
Instructional materials	______
Parental conference	______
Professional organization	______
Student affairs (other than discipline)	______
Student discipline	______
Teaching assignment	______
Testing program	______
Other	______
Total	______

Per cent of faculty-initiated communication through individual conference previous 20 day period (divide total number of teachers communicating with the principal by your total number of faculty members.) ______

7. Oral teacher-initiated group conferences with the principal (more than one teacher requesting a conference with the principal in the same conference)

Coordination of school program	______
Building and room maintenance	______
Curriculum development	______
Instructional materials	______
Parental conference	______

NUMBER OF
COMMUNICATIONS

Professional organization ______
Student affairs (other than discipline) ______
Student discipline ______
Teaching assignment ______
Testing program ______
Other ______
Total ______

Per cent of faculty requesting group conferences with the principal previous 20 day period (divide total number of teachers contacted by your total number of faculty members.) ______

COMMENTS

Any comments that you care to make concerning your communication network within your school or special devices that you use to improve communication will be appreciated?

____
____
____
____
____
____

PERSONAL DATA

1. Your age: 20-25; 26-30; 31-35; 36-40; 41-45; 46-50; 51-55; 56-60; 61-65; 66-70; over 70 (circle one).
2. Your sex: F M (circle one).
3. Years teaching experience: 1-5; 6-10; 11-15; 16-20; 21-25; 26-30; 31-35; over 40 (circle one).
4. Years with Ohio schools: 1; 2; 3; 4; 5; 6-10; 11-15; over 15 (circle one).
5. Years in present school: 1; 2; 3; 4; 5; 6-10; 11-15; 16-20; 21-25; (circle one).
6. Years administrative experience: 1; 2; 3; 4; 5; 6-10; 11-15; 16-20; 21-25; 26-30; over 30 (circle one).
7. Highest college degree: B.A.; M.A.; doctorate (circle one)

TEACHER SATISFACTION SCALE (Form A)[1]

Instructions: The purpose of this inventory is to obtain your judgment of the following eleven factors of teacher morale. Please make your judgments on the basis of what these factors mean to you.

Under each factor are ten judgments which you are asked to rate. If you feel that the concept of the judgment is very closely related to one end of the scale, you would place your check-mark as follows:

poor ___X___:______:______:______:______:______:______: excellent

OR

poor ______:______:______:______:______:______:___X___: excellent

If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your check-mark as follows:

unsuccessful ______:___X___:______:______:______:______:______: successful

OR

unsuccessful ______:______:______:______:______:___X___:______: successful

If the concept seems only slightly related to one side as opposed to the other side (but is not really neutral), then you should check as follows:

hazy ______:______:___X___:______:______:______:______: clear

OR

hazy ______:______:______:______:______:___X___:______: clear

If you consider the concept to be neutral on the scale, both sides of the scale equally associated with the concept, or if the scale is completely irrelevant, unrelated to the concept, then you should place your check-mark in the middle space.

negative ______:______:______:___X___:______:______:______: positive

Please complete each of the ten judgments for each morale factor.

---

[1] Charles E. Osgood, George J. Suci, and Percy Tannenbaum, *The Measurement of Meaning* (Urbana: University of Illinois Press, 1957).

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IMPORTANT: Please check every concept. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feeling" about the items, that is desired. On the other hand, please do not be careless, because we want your true impressions.

All of the following relate to your working conditions in your school.

1. Utilization of your talents and sense of achievement

poor ______:______:______:______:______:______:______: excellent
incomplete ______:______:______:______:______:______:______: complete
unsuccessful ______:______:______:______:______:______:______: successful
unharmonious ______:______:______:______:______:______:______: harmonious
meaningless ______:______:______:______:______:______:______: meaningful
negative ______:______:______:______:______:______:______: positive
unusual ______:______:______:______:______:______:______: usual
erratic ______:______:______:______:______:______:______: periodic
inconsistent ______:______:______:______:______:______:______: consistent
hazy ______:______:______:______:______:______:______: clear
1 2 3 4 5 6 7

2. Success of principal in working with teachers

poor ______:______:______:______:______:______:______: excellent
incomplete ______:______:______:______:______:______:______: complete
unsuccessful ______:______:______:______:______:______:______: successful
unharmonious ______:______:______:______:______:______:______: harmonious
meaningless ______:______:______:______:______:______:______: meaningful
negative ______:______:______:______:______:______:______: positive
unusual ______:______:______:______:______:______:______: usual
erratic ______:______:______:______:______:______:______: periodic
inconsistent ______:______:______:______:______:______:______: consistent
hazy ______:______:______:______:______:______:______: clear
1 2 3 4 5 6 7

3. Your relationships with other faculty members

poor ______:______:______:______:______:______:______: excellent
incomplete ______:______:______:______:______:______:______: complete
unsuccessful ______:______:______:______:______:______:______: successful
unharmonious ______:______:______:______:______:______:______: harmonious
meaningless ______:______:______:______:______:______:______: meaningful
negative ______:______:______:______:______:______:______: positive
unusual ______:______:______:______:______:______:______: usual
erratic ______:______:______:______:______:______:______: periodic
inconsistent ______:______:______:______:______:______:______: consistent
hazy ______:______:______:______:______:______:______: clear
1 2 3 4 5 6 7

4. Agreement on purposes (overall faculty agreement on the purposes of the educational program)

poor ______:______:______:______:______:______:______: excellent
incomplete ______:______:______:______:______:______:______: complete
unsuccessful ______:______:______:______:______:______:______: successful
unharmonious ______:______:______:______:______:______:______: harmonious
meaningless ______:______:______:______:______:______:______: meaningful
negative ______:______:______:______:______:______:______: positive
unusual ______:______:______:______:______:______:______: usual
erratic ______:______:______:______:______:______:______: periodic
inconsistent ______:______:______:______:______:______:______: consistent
hazy ______:______:______:______:______:______:______: clear
1 2 3 4 5 6 7

5. Cooperative determination of policy

poor ______:______:______:______:______:______:______: excellent
incomplete ______:______:______:______:______:______:______: complete
unsuccessful ______:______:______:______:______:______:______: successful
unharmonious ______:______:______:______:______:______:______: harmonious
meaningless ______:______:______:______:______:______:______: meaningful
negative ______:______:______:______:______:______:______: positive
unusual ______:______:______:______:______:______:______: usual
erratic ______:______:______:______:______:______:______: periodic
inconsistent ______:______:______:______:______:______:______: consistent
hazy ______:______:______:______:______:______:______: clear
1 2 3 4 5 6 7

6. Your relationships and acceptance in the community

poor ______:______:______:______:______:______:______: excellent
incomplete ______:______:______:______:______:______:______: complete
unsuccessful ______:______:______:______:______:______:______: successful
unharmonious ______:______:______:______:______:______:______: harmonious
meaningless ______:______:______:______:______:______:______: meaningful
negative ______:______:______:______:______:______:______: positive
unusual ______:______:______:______:______:______:______: usual
erratic ______:______:______:______:______:______:______: periodic
inconsistent ______:______:______:______:______:______:______: consistent
hazy ______:______:______:______:______:______:______: clear
1 2 3 4 5 6 7

7. School policy on sick leave and concern for health of teacher

poor ______:______:______:______:______:______:______: excellent
incomplete ______:______:______:______:______:______:______: complete
unsuccessful ______:______:______:______:______:______:______: successful
unharmonious ______:______:______:______:______:______:______: harmonious
meaningless ______:______:______:______:______:______:______: meaningful
negative ______:______:______:______:______:______:______: positive
unusual ______:______:______:______:______:______:______: usual
erratic ______:______:______:______:______:______:______: periodic
inconsistent ______:______:______:______:______:______:______: consistent
hazy ______:______:______:______:______:______:______: clear

8. Interest of your principal in your economic security (housing, salary, etc.)

poor								excellent
incomplete								complete
unsuccessful								successful
unharmonious								harmonious
meaningless								meaningful
negative								positive
unusual								usual
erratic								periodic
inconsistent								consistent
hazy								clear
	1	2	3	4	5	6	7	

9. Your relationship with your students

poor								excellent
incomplete								complete
unsuccessful								successful
unharmonious								harmonious
meaningless								meaningful
negative								positive
unusual								usual
erratic								periodic
inconsistent								consistent
hazy								clear
	1	2	3	4	5	6	7	

10. Your estimate of your progress in fulfilling the objectives of your classes

poor								excellent
incomplete								complete
unsuccessful								successful
unharmonious								harmonious
meaningless								meaningful
negative								positive
unusual								usual
erratic								periodic
inconsistent								consistent
hazy								clear
	1	2	3	4	5	6	7	

11. Your estimate of the relationship of your principal with the superintendent's office

poor								excellent
incomplete								complete
unsuccessful								successful
unharmonious								harmonious
meaningless								meaningful
negative								positive
unusual								usual
erratic								periodic
inconsistent								consistent
hazy								clear
	1	2	3	4	5	6	7	

COMMENTS

Any comments that you care to make concerning your satisfaction with the working conditions of your school and ways in which you think teacher satisfaction might be improved in your school?

PERSONAL DATA

1. Your age: 21-25; 26-30; 31-35;36-40;41-45;46-50; 51-55; 56-60; 61-65; 66-70; over 70 (circle one).
2. Your sex: F M (circle one).
3. Years teaching experience: 1; 2; 3; 4; 5; 6-10; 11-15; 16-20; 21-25; 26-30; over 30 (circle one).
4. Years with Ohio schools: 1; 2; 3; 4; 5; 6-10; 11-15; 16-20; over 20 (circle one).
5. Years in present school: 1; 2; 3; 4; 5; 6-10; 11-15; 16-20; over 20 (circle one).
6. Highest college degree: B.A.; M.A.; doctorate (circle one).

PLEASE CHECK TO INSURE THAT ALL ITEMS ARE COMPLETED

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TEACHER SATISFACTION SCALE (form B)

Please indicate on this sheet the degree of your personal satisfaction on the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory, and 5 as highly satisfactory. Thus the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

1. The principal use of my teacher talents is ___.
2. My own personal sense of achievement at this school is ___.
3. The principal's success in working with me as a teacher is ___.
4. My own relationships with other teachers in this school is ___.
5. My personal agreement with the educational goals of the curriculum in the school is ___.
6. The cooperative determination of policy in this school by the principal and the teachers is ___.
7. My own community relationships are ___.
8. The school policy on sick leave is ___.
9. The principal's concern for my health is ___.
10. The school policy on personal leave is ___.
11. The principal's concern for my own economic security is ___.

TEACHER SATISFACTION SCALE (Form C)

Please indicate on this sheet the degree of your personal satisfaction with the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory, and 5 as highly satisfactory. Thus, the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

1. The principal's use of my teacher talents is ___.
2. My own personal sense of achievement at this school is ___.
3. The principal's success in working with me as a teacher is ___.
4. My personal agreement with the educational goals of the curriculum in the school is ___.
5. The cooperative determination of policy in this school by the principal and the teachers is ___.
6. The principal's personal interest in me as a human being is ___.
7. My own personal relationships with other teachers in this school is ___.
8. The personal relationships among the other teachers and the principal in this school is ___.
9. The casual social relationship between the principal and me is ___.
10. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ___.
11. Whenever a parent criticizes me to the principal, my admiration for the principal is ___.
12. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ___.
13. Whenever I ask for time off, the principal's reaction to it is ___.
14. My success as a teacher with my pupils is ___.
15. My personal friendship with my pupils is ___.
16. My desire to continue at this school on an indefinite basis is ___.
17. The principal's handling of pupil disciplinary problems referred to him by me is ___.
18. The performance of the guidance counselors at this school in relation to my pupils is ___.
19. As a general statement, the socio-economic background of my pupils at this school is ___.

TEACHER SATISFACTION SCALE (Form B)

Please indicate on the attached sheet the degree of your personal satisfaction with the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory and 5 as highly satisfactory. Thus, the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

1. The principal's use of my teacher talents is _____.
2. My own personal sense of achievement at this school is _____.
3. The principal's success in working with me as a teacher is _____.
4. The principal's personal interest in me as a human being is _____.
5. The personal relationships among the other teachers and the principal in this school is _____.
6. The casual social relationship between the principal and me is _____.
7. Whenever I make a mistake which becomes known to the principal, my feeling toward him is _____.
8. Whenever a parent criticizes me to the principal, my admiration for the principal is _____.
9. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is _____.
10. Whenever I ask for time off, the principal's reaction to it is _____.
11. My success as a teacher with my pupils is _____.
12. My personal friendship with my pupils is _____.
13. My desire to continue at this school on an indefinite basis is _____.

TEACHER SATISFACTION SCALE (Form B)

Please indicate on this sheet the degree of your personal satisfaction on the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory, and 5 as highly satisfactory. Thus the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

1. The principal use of my teacher talents is ___.
2. My own personal sense of achievement at this school is ___.
3. The principal's success in working with me as a teacher is ___.
4. My own relationships with other teachers in this school is ___.
5. My personal agreement with the educational goals of the curriculum in the school is ___.
6. The cooperative determination of policy in this school by the principal and the teachers is ___.
7. My own community relationships are ___.
8. The school policy on sick leave is ___.
9. The principal's concern for my health is ___.
10. The school policy on personal leave is ___.
11. The principal's concern for my own economic security is ___.

TEACHER SATISFACTION SCALE (Form C)

Please indicate on this sheet the degree of your personal satisfaction with the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory, and 5 as highly satisfactory. Thus, the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

1. The principal's use of my teacher talents is ___.
2. My own personal sense of achievement at this school is ___.
3. The principal's success in working with me as a teacher is ___.
4. My personal agreement with the educational goals of the curriculum in the school is ___.
5. The cooperative determination of policy in this school by the principal and the teachers is ___.
6. The principal's personal interest in me as a human being is ___.
7. My own personal relationships with other teachers in this school is ___.
8. The personal relationships among the other teachers and the principal in this school is ___.
9. The casual social relationship between the principal and me is ___.
10. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ___.
11. Whenever a parent criticizes me to the principal, my admiration for the principal is ___.
12. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ___.
13. Whenever I ask for time off, the principal's reaction to it is ___.
14. My success as a teacher with my pupils is ___.
15. My personal friendship with my pupils is ___.
16. My desire to continue at this school on an indefinite basis is ___.
17. The principal's handling of pupil disciplinary problems referred to him by me is ___.
18. The performance of the guidance counselors at this school in relation to my pupils is ___.
19. As a general statement, the socio-economic background of my pupils at this school is ___.

TEACHER SATISFACTION SCALE (Form B)

Please indicate on the attached sheet the degree of your personal satisfaction with the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory and 5 as highly satisfactory. Thus, the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

1. The principal's use of my teacher talents is ____.
2. My own personal sense of achievement at this school is ____.
3. The principal's success in working with me as a teacher is ____.
4. The principal's personal interest in me as a human being is ____.
5. The personal relationships among the other teachers and the principal in this school is ____.
6. The casual social relationship between the principal and me is ____.
7. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ____.
8. Whenever a parent criticizes me to the principal, my admiration for the principal is ____.
9. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ____.
10. Whenever I ask for time off, the principal's reaction to it is ____.
11. My success as a teacher with my pupils is ____.
12. My personal friendship with my pupils is ____.
13. My desire to continue at this school on an indefinite basis is ____.

VII. The Field Testing of Form D of the *Teacher Satisfaction Scale*.

The following is a continuation of research conducted in the Tidewater Virginia Area between September, 1968 and December, 1969. It attempts to answer empirically the questions posed in the previous section. One aspect, however, was not completed as contemplated, that is, the Richardson and Blocher formulation of teacher morale.[43]

A brief summary would seem to be appropriate before the empirical findings for the final quarter for this report are presented. Form D had become the fourth version of Wood's *Teacher Satisfaction Scale* and had been modified into its present form as a result of the experiences with Forms A, B, and C. New samples were gathered with Form D as well as the

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[43] See footnote 3 above. In this footnote, comment was made about the similarities between the ten factors (not items) on the *Purdue Teacher Opinionaire* and the Wood items (not factors) on Form A of his *TSS*. On pp. 4-5 above, the similarities between the Anderson and Van Dyke, as well as the Wood delineations, also were noted. Two additional investigations have appeared dealing with the variable, teacher morale. The first, R. H. Gubser, "Authoritarianism Among Teachers and School Principals and Its Possible Relationship to Faculty Morale," *Journal of Educational Research* 63:1 (September, 1969), 36-38 employed the *PTO*. Said Gubser: "Because of the general complexity of educational morale, an instrument that would treat morale as a continuous variable, yet could provide both general and sub-variable scores, was considered necessary. ...The *PTO* yields a general morale score plus sub-scores for the following ten factors: teacher rapport with the principal, satisfaction with teaching, rapport among teachers, teacher salary, teacher load, curriculum issues, teacher status, community support of education, school facilities and services, and community pressures." Again, the similarities of these factors to the Anderson and Van Dyke, as well as the Wood, delineations should be noted.

The second, A. Blumberg and W. A. Weber, "Teacher Morale as a Function of Perceived Supervisor Behavioral Style," *Journal of Educational Research* 62:3(November 1968), 109-113, employed Suehr's incomplete sentence form for teacher morale (See "A Study of Morale in Education Utilizing Incomplete Sentences," *Journal of Educational Research*, LVI, October, 1962), 75-81.) Said Blumberg and Weber: "Morale seems to be somewhat a nebulous concept which is difficult to define. It is equally difficult to make definitive statements concerning the variables of which morale is a possible function." Despite this, the Halpin comments on morale, and the outcomes in this investigation, researchers continue to pursue the cloudy concept, teacher morale.

OCDQ esprit subdimension. These new data were subjected to statistical analyses: odd-even item split-half reliability coefficients for Form D, factorial analyses for Form D, and a Spearman rank correlation by school between the Form D means and OCDQ esprit means.

Fifteen elementary schools, none of which had been before involved in this investigation, provided the new samples. Table XVII identifies these Tidewater Virginia schools. The total number of teachers in the entire sample was 292. All computational work was provided by the Computer Center at the Engineering School.

VIII. The Odd-Even Item Reliability Coefficients for Form D.

The Spearman-Brown prophecy formula was applied to all reliability coefficient computations. Table XVII shows the results. The odd-even item reliability coefficients for Form D by school ranged from a .38 to a .94. In general, these coefficients were not as high as those obtained with Form C but, nevertheless, did substantiate these reliability coefficients (or coefficients of internal consistency) that Form D to be a viable instrument insofar as its internal consistency was concerned.

Halpin had been quoted as saying that high communality scores in factorial analysis provided high estimates of the reliability of a subtest.[41] At the item, not subtest level, if this also be true, then the factorial analysis communality scores with Form D also provided highly reliable data. All communality scores on each of the thirteen items on Form D among all the fifteen factorial analyses completed gave scores of .48 to .99 with the greater preponderance of these scores being .70 or higher.

IX. The Results of the Factorial Analyses with Form D

Contrary to the high results obtained with the above reliability coefficients, the fifteen separate factorial analyses with Form D seemed to have resulted in a complete collapse. The application of theory and factorial analysis to Form C resulted in the tentative identification of three factors, Principal-Teacher Relationships, Individual Teacher Ego Needs-Dispositions and Teacher Self-Integration. Tables XVIII, XIX, and XX show the correlations obtained with each of these factors among the fifteen elementary schools. These tables, in addition, explain which items related to each of these factors.

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[41] Halpin, op. cit., pp. 160-161.

A study of these tables provided no discernible data which would, in fact, confirm the hypothesis that these three factors did indeed determine teacher morale within a school building. From these statistical data it is, furthermore, believed that the Getzels and Guba theoretical model for teacher morale could be questioned. In addition, these data provided no clues to Halpin's position that teacher morale within the school building as measured by his OCDQ, consisted of two subdimensions, Esprit and Intimacy. Halpin held the former to indicate individual qua individual ego needs-dispositions while the latter to indicate group qua group ego needs-dispositions. Self-Integration and Individual Teacher Ego in Needs-Dispositions, as factors on Form C, were believed to parallel Halpin's Esprit and Intimacy subdimensions. The factorial data with Form D did not produce two identifiable factors on the Factor II and III rotational solutions (Tables XIX and XX).

Despite the most disappointing results with the factorial analyses throughout this investigation, a statistician had the following to say about factorial analytic procedures:

> It should be pointed out that the entire factor analytic field is tremendously technical and, at this writing, quite unsettled. ... Yet with all its complexities, factor analysis is undoubtedly one of the research worker's more important weapons. ... Factor analysis provides the researcher with a statistical tool for analyzing a large number of variables in order to determine whether there are a few identifiable dimensions which can be used to describe many of the variables under analysis. ... It may be helpful to think of factor analysis as nothing more than an aid to the study of a table of correlations.[42]

Without these intercorrelations in this investigation and a study of them, obviously no decisions could have been made about the variable, teacher morale. Since the statistical evidence did not seem to confirm the conjectures derived from Form C, was teacher morale a viable concept? Probably not.

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[42] W. James Popham, Educational Statistics (New York: Harper and Row, 1967), p. 287, p. 257.

X. Spearman Rho Correlations by School Between Form D TSS Means and OCDQ Esprit Means

In Section IV above, the Form C TSS means of each school were correlated with their respective OCDQ esprit means. After all, Form C was supposedly measuring teacher morale within the school building as well as, according to Halpin, his own OCDQ esprit sub-dimension. Table XVI shows the data. The obtained rho of .77 was significant not only at the .05 but also the .01 level of acceptance.

In a similar manner, the Form D TSS means of each school were correlated with their respective OCDQ esprit means. None of the fourteen schools in the Form D sample were in the eleven Form C school sample. Therefore, two entirely different samples were involved with the two separate Spearman rho correlations. Table XXI shows the results for the Form D sample. The obtained rho of .53 was significant at the .05 but not the .01 level of acceptance.

Thus, from all this evidence Form D, as well as Form C, and the OCDQ were measuring a phenomenon, apparently teacher morale within the school building, the TSS by its own operational criteria and the OCDQ esprit subdimension by its own operational criteria. But since both operational criteria correlated by school in two entirely different samples, it also probably must follow that the variable, teacher morale within the school building, at least from the evidence within this section, was a viable concept. This assertion was, furthermore, supported by the evidence obtained with the split-half item reliability coefficients.

The evidence presented in Section IX above, on the other hand, gave no support whatever as to the viability of the variable, teacher morale within the school building.

XI. Conclusions and Recommendations

The evidence within this investigation about the viability of the variable, teacher morale within the school building, has produced mixed results. It is this investigator's position now that a concept (construct) must hold itself up under some form of factorial analysis. If it does not, it probably is not a viable concept.

Factorial analysis, first, allows for the generating of concepts from some theoretical framework. Items employed at the measurement or operational level would therefore somehow be by some rationalistic conjecture related to the construct itself and to any of its so-called factors if the theoretical framework, as usually seems to be the case, is also multidimensional. That is, as one moves from the lowest operational level of measurement at the item level through factorial analysis in order to discern the higher order abstractions, "factors" above the item level to the still higher order abstract of the concept (or construct) itself, these procedures together seem to be the only means by which a researcher can move from operationalism to what DiRenzo has so aptly called "ultimate reality," ontology. (It would be advisable to read DiRenzo's remarks again).

Split-half reliability procedures, on the other hand, do not seem to be dealing with ultimate reality. They are, of course, but one aspect of reliable and valid operationalism. They do seem to indicate that "something is being measured with consistency," as the reported experiences here with Forms A, B, C and D of the *TSS* seem to bear out. But these high reliability coefficients were obtained, it seemed, through operationalism and not through substantiveness (refer to DiRenzo's remarks on page 33 above). In other words, scaled items, which supposedly "measured" a construct, teacher satisfaction, themselves were subjected to a statistical analysis and indicated high correlations among the many school samples above. But when another statistical procedure, factorial analysis, was applied to the data, no evidence whatever was produced. Rather there was a complete collapse within the factorial analysis procedures and the printouts indicated more chance (or random) rather than non-chance behavior.

Form A, it will be recalled, apparently was not generated from any theoretical framework. Yet statistically, it seemed to be measuring "something." Was this in itself a chance statistical finding? The split-half reliability coefficients with Form A indicated otherwise. With the evidence from Form A, Form B was constructed. It, too, provided promise and suggested further investigation. With the new evidence produced by Form B, including new factorial analysis, Form C was constructed with Getzel and Guba's theoretical rationale added as well as the data of significance produced by Form B through factorial analysis. The new data with Form C again produced high reliability coefficients in several contexts and new school samples, but no meaningful patterning in the emergence of so-called factors through factorial analysis. At this point, the

Form C *TMS* means were correlated by school with Halpin's *OCDQ* esprit means (Table XVI). After all, it was purported that both instruments measured the construct, teacher morale within the school building. Each instrument had different items; in short, each instrument had its own operational definition of the variable or construct it was necessary, but nevertheless, both were supposedly measuring the same abstraction. Moreover, each instrument had high reliability coefficients based on the split-half procedures reported above. They should therefore, it was hypothesized, correlate significantly by school. They did (Table XVI). These results, moreover, were not the same with Form A and the *OCDQ* esprit subdimension (Tables II, III, IV, V and VI). Nevertheless, the efforts with Form C continued to give additional promises with the exception of the factorial analysis procedures with it.

Further pursuit with Form D was the next step. Evidence derived with Form C would result, it was hoped, with a higher order instrument. New data from entirely different schools were gathered with Form D. The results with this form are report from Table XVII on. Again relatively high split-half reliability coefficients were produced as with Form C. Again, there was a complete collapse through factorial analysis as with Form C. And finally, when the Form D *TMS* means were correlated by school with the *OCDQ* esprit means, significance at the .05 level, as with Form C, occurred.

What can be said, as a result, for a final concluding statement? It was this investigator's constant apprehension that teacher morale was an elusive as well as a questionable concept. Halpin with his two *OCDQ* subdimensions of Esprit and Intimacy held otherwise. The cited literature seemed to point out only toward the futility in dealing with this variable, but also that operationalism and not substantiveness seemed to be the essence of what the various researchers cited were engaged in. DiRenzo and Zetterburg supported this investigator's position.

However, the empirical data in this investigation to this point has produced mixed results and with it--much ambivalence. The two statistically significant correlations between the *OCDQ* esprit subdimensions and the Form C and D *TMS* means definitely seem to indicate the reality or substantiveness of the construct, teacher morale, while on the other hand, the factorial analyses have produced no convincing evidence whatever. Unless a construct, including teacher morale, can hold up under factorial analyses and thus empirically prove the validity of the theoretical system from which it was derived, then indeed, it seems, a construct lacks a "reality" aspect and operationalism, not substantivity, is explaining the theory.

Finally, future researchers should begin to question concepts or constructs which attempt to measure individual or collective psychic states for, after all, is it possible to measure something toward which an individual has a degree of "feeling"? Probably not, if this experience is used as the basis for this final conclusion. Basically, it seems, real concepts are found or discovered and not invented or created as the nominalists and operationalists seem to do.

TABLE XVII

Split-half Item Reliability Coefficients, Form D, *Teacher Satisfaction Scale*.

1. Reddick-Weaver Elementary, Portsmouth	$N = 46$	$r_t = .68$
2. Stonewall Jackson Elementary, Newport News	$N = 18$	$r_t = .58$
3. Walter Reed Elementary, Newport News	$N = 19$	$r_t = .75$
4. Thomas Jefferson Elementary, Newport News	$N = 15$	$r_t = .68$
5. James E. Lee Elementary, Newport News	$N = 18$	$r_t = .71$
6. Bowling Park Elementary, Norfolk	$N = 35$	$r_t = .75$
7. Erwin Elementary Newport News	$N = 14$	$r_t = .94$
8. Chesterfield Heights Elementary, Norfolk	$N = 26$	$r_t = .41$
9. Dunbar Elementary, Newport News	$N = 34$	$r_t = .56$
10. Pineridge Elementary, Norfolk	$N = 8$	$r_t = .36$
11. East Ocean View Elementary, Norfolk	$N = 10$	$r_t = .87$
12. Tucker Elementary, Norfolk	$N = 15$	$r_t = .83$
13. Campostella Elementary, Norfolk	$N = 7$	$r_t = .98$
14. John Marshall Elementary, Newport News	$N = 10$	$r_t = .80$
15. Chilton Elementary, Chesapeake	$\underline{N = 17}$	$r_t = .77$
	$N_t = 292$	

All the above correlations were significant at the .01 level except School 2 at the .02 level, School 8 at the .05 level, and School 10 was not significant.

Table XVIII

Comparisons by School of Three Factor Rotational Solutions on Factor I, Form D, Teacher Satisfaction Scale.

Item Number Form D	School Identification Number[1] 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.39[2]	.23	.26	.21	.78	.18	.88	.22	-.16	-.01	.70	.43	.77	.28	.18
2	.24	.11	.12	-.01	.14	.18	.92	.28	-.14	-.80	.46	.05	.38	.73	.24
3	.72	.37	.63	.18	.26	.49	.86	.87	.22	-.01	.83	.74	.83	.28	.25
4	.75	.40	.26	.04	.30	.51	.73	.89	-.33	-.02	.81	.58	.54	.08	.06
5	.53	.30	.19	.48	.42	.58	.48	.68	-.08	.35	.84	.04	.15	.48	.43
6	.43	.40	.29	.51	.29	.85	.15	.78	-.16	-.73	.87	.53	.04	.47	.63
7	.50	.81	.85	.25	.27	.17	.07	.92	-.09	.03	.76	.24	.83	.23	.43
8	.74	.82	.55	.23	.22	.23	.36	.74	-.23	-.46	.17	-.18	.05	.75	.11
9	.24	.14	.83	.12	.78	.18	.13	.08	-.08	-.47	.77	.32	.42	.13	.38
10	.36	.53	.84	.67	.72	.06	.15	.28	-.11	-.73	.25	.37	-.08	.23	.63
11	.11	.002	.25	.28	-.07	-.06	.44	.11	-.16	-.12	.51	.03	.04	.83	.11
12	.10	-.14	.31	.008	.01	.02	.43	.31	-.72	.001	.48	.28	-.15	.03	.23
13	.38	.13	.16	.11	.07	.12	.71	.46	-.17	-.53	.85	-.27	.05	.08	.61
Eigenvalue	6.7	7.3	7.1	5.6	5.6	5.9	8.1	7.1	6.9	6.7	10.2	5.7	5.3	9.1	7.8
Per Cent of Variance	.51	.56	.55	.43	.43	.44	.62	.55	.53	.52	.78	.44	.41	.70	.61

[1] See Table XVII for the identification of each school.

[2] A correlation coefficient of .30 or higher is assumed to be significant.

Items 1, 3, 4, 5 and 10 were intended to operationalize Factor I, Principal-Teacher Relationships, a factor identified from Form C. The sheer randomness of the coefficients above on these items, as well as the remaining items, can only be construed as pure chance throughout and not the emergence of a statistically significant factor i.e. Principal-Teacher Relationships based primarily on the teacher's role expectations of the principal's overt behavior.

TABLE XIX

Comparison by School of Three Factor Rotational Solutions on Factor II, Form D, Teacher Satisfaction Scale

Item Number Form D															
1	.17[2]	-.23	-.02	-.11	.22	-.02	.20	.03	-.21	-.10	.02	.05	-.05	.12	-.03
2	.00	.22	-.02	.27	.31	.07	.09	.70	-.17	.12	.29	.33	.15	.06	.23
3.	.22	-.08	-.34	.40	.23	.10	.13	.22	-.44	-.28	.15	.22	.01	.07	.11
4	-.07	-.23	-.14	.35	-.13	.02	.36	.27	-.18	-.09	.10	.50	.12	.07	.27
5	-.02	-.32	-.07	-.45	.02	-.08	.42	.13	-.38	.03	.44	.26	-.07	.36	-.14
6	.17	-.06	-.12	-.36	-.01	-.08	.04	.75	-.36	.07	.00	-.08	-.23	.45	.12
7	.08	-.07	-.33	-.40	.03	.15	.36	.06	-.08	-.23	.26	.26	-.13	.22	-.28
8	.16	-.03	-.10	.42	-.02	.27	.73	.05	-.21	-.30	.03	.05	-.10	.41	-.10
9	.22	-.28	-.20	.06	-.35	.05	.76	.20	-.22	.07	.26	.01	-.40	.07	-.26
10	.13	-.30	-.11	-.10	-.06	.77	.40	.25	-.11	-.21	.01	.003	-.08	.04	.08
11	.22	.01	-.03	.40	.01	.06	.08	.03	-.73	.33	.06	-.17	-.30	.10	.03
12	.10	.01	-.01	.10	.25	.01	.10	.08	-.41	.00	.41	.002	-.08	.38	.10
13	.06	-.18	-.20	.42	-.02	.09	.17	.20	-.08	-.40	.26	.13	-.10	.20	.22
Eigenvalue	1.47	1.90	1.4	1.8	2.3	1.0	2.2	1.0	1.9	2.7	1.6	2.1	2.0	1.8	1.5
Per Cent of Variance	.13	.14	.01	.14	.17	.14	.17	.14	.10	.21	.11	.15	.21	.10	.12

[1] See Table XVII for the identification of each school.

[2] A correlation coefficient of .30 or higher is assumed to be significant.

Items 3, 6, 7, 8, 9 were intended to operationalize Factor II, Individual Teacher Ego Needs-Dispositions, a factor identified from Form C. The sheer randomness of the coefficients shown on these items, as well as the remaining items, can only be construed as pure chance throughout and not the emergence of a statistically significant factor i.e. Individual Teacher Ego Needs-Dispositions.

TABLE XX

Comparison by School of Three Factor Rotational Solution on Factor III, Form D, Teacher Satisfaction Scale.

Item Number, Form D	School Identification Number[1]														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.04	.12	-.26	.06	-.32	.21	.04	.02	.13	.31	-.40	-.11	-.12	-.20	-.20
2	-.09	.90	-.27	-.02	-.19	.08	.25	.16	.03	.07	-.02	-.27	-.09	-.03	-.03
3	-.09	.24	-.09	-.06	.05	.04	.10	.31	.24	.17	-.20	-.40	-.43	-.10	-.13
4	-.73	.33	-.04	.02	-.50	.16	-.04	.08	.31	.07	-.33	-.32	-.10	.24	-.25
5	-.24	.31	-.93	.11	-.14	.24	.21	.45	.22	.53	-.23	-.70	.08	-.12	-.35
6	-.25	.02	-.03	.03	-.27	.01	.08	.26	.15	-.42	-.30	-.30	-.03	-.71	-.43
7	-.09	.22	-.71	-.02	-.00	.03	.19	.24	.27	.25	-.40	-.27	.17	-.27	-.24
8	-.13	.18	-.30	.16	-.13	.06	.22	.02	.18	.12	-.20	-.08	-.04	-.24	-.08
9	-.13	.67	-.05	-.27	-.20	.25	.52	.17	.00	-.08	-.40	.17	-.15	-.30	-.43
10	-.26	.71	-.20	.12	-.03	.95	.86	-.11	.33	.32	-.21	.06	-.06	.009	-.13
11	-.30	.07	-.005	.65	-.01	.111	.21	.07	.42	.25	-.75	.06	-.14	-.35	-.16
12	-.25	-.06	.06	.99	-.09	-.04	.11	.05	.34	.43	-.52	-.33	.001	-.07	-.04
13	-.55	.11	-.14	.07	-.15	.08	.42	.13	.12	.25	-.33	-.31	.00	-.47	.03
Eigenvalue	1.1	1.3	1.1	1.6	1.3	1.1	.81	1.0	1.2	1.7	.55	1.6	1.8	.51	1.1
Per Cent of Variance	.08	.11	.09	.12	.10	.09	.06	.08	.09	.13	.04	.12	.14	.07	.08

[1] See Table XVII for the identification of each school.

[2] A coefficient correlation of .30 or higher is assumed to be significant.

Items 11, 12 and 13 were intended to operationalize Factor III, Teacher Self-Integration, a factor identified from Form C. The sheer randomness of the coefficients above on these items, as well as the remaining items, can only be construed as pure chance throughout and not the emergence of a statistically significant factor i.e. Teacher Self-Integration.

TABLE XII

Spearman Rank Correlation By School Form 3, *Teacher Satisfaction Scale* Means and *OCDQ* Esprit Means.

School Identification Number[1]	Form 3, *TSS* Means	*OCDQ* Esprit Means
1	4.08	55
2	3.76	42
3	3.43	53
4	4.02	56
5	3.85	59
6	3.58	50
7	3.53	41
8	3.61	57
9	3.83	51
10	3.34	42
11	3.47	55
12	3.57	46
13	4.12	49
14[2]	4.27	Not Available
15	4.25	58

[1] See Table XVII for the identification of each school.

[2] The *OCDQ* esprit mean for School 14 was not available.

With a N of 14, a rho of .456 or higher is needed at the .05 level of acceptance and a rho of .645 or higher at the .01 level of acceptance, both on a one-tailed test. The computed rho for the above data was .51. This was significant at the .05 level of acceptance.

TEACHER SATISFACTION SCALE (Form C)

Please indicate on the attached sheet the degree of your personal satisfaction with the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory and 5 as highly satisfactory. Thus, the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

Factor I: Principal-Teacher Professional Relationships

1. The principal's use of my teacher talents is ____.

2. My own personal sense of achievement at this school is ____.

3. The principal's success in working with me as a teacher is ____.

4. My personal agreement with the educational goals of the curriculum in the school is ____.

5. The cooperative determination of policy in this school by the principal and the teachers is ____.

Factor II (Not Used)

Factor III: Principal-Teacher Familiarity

6. The principal's personal interest in me as a human being is ____.

7. My own personal relationships with other teachers in this school is ____.

8. The personal relationships among the other teachers and the principal in this school is ____.

9. The casual social relationship between the principal and me is ____.

Factor IV: Teacher On-The-Job Security

10. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ____.

11. Whenever a parent criticizes me to the principal, my admiration for the principal is ____.

12. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is _____.

13. Whenever I ask for time off, the principal's reaction to it is _____.

Factor V: Teacher-Pupil Relationships

14. My success as a teacher with my pupils is _____.

15. My personal friendship with my pupils is _____.

16. My desire to continue at this school on an indefinite basis is _____.

17. The principal's handling of pupil disciplinary problems referred to him by me is _____.

18. The performance of the guidance counselors at this school in relation to my pupils is _____.

19. As a general statement, the socio-economic background of my pupils at this school to me is _____.

TEACHER SATISFACTION SCALE (Form B)

Please indicate on the attached sheet the degree of your personal satisfaction with the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory and 5 as highly satisfactory. Thus, the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

1. The principal's use of my teacher talents is _____.
2. My own personal sense of achievement at this school is _____.
3. The principal's success in working with me as a teacher is _____.
4. My own relationships with other teachers in this school is _____.
5. My personal agreement with the educational goals of the curriculum in the school is _____.
6. The cooperative determination of policy in this school by the principal and teachers is _____.
7. My own community relationships are _____.
8. The school policy on sick leave is _____.
9. The principal's concern for my health is _____.
10. The school policy on personal leave is _____.
11. The principal's concern for my own economic security is _____.

TEACHER SATISFACTION SCALE (Form C)

Please indicate on the attached sheet the degree of your personal satisfaction with the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory and 5 as highly satisfactory. Thus, the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

1. The principal's use of my teacher talents is ____.

2. My own personal sense of achievement at this school is ____.

3. The principal's success in working with me as a teacher is ____.

4. My personal agreement with the educational goals of the curriculum in the school is ____.

5. The cooperative determination of policy in this school by the principal and the teachers is ____.

6. The principal's personal interest in me as a human being is ____.

7. My own personal relationships with other teachers in this school is ____.

8. The personal relationships among the other teachers and the principal in this school is ____.

9. The casual social relationship between the principal and me is ____.

10. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ____.

11. Whenever a parent criticizes me to the principal, my admiration for the principal is ____.

12. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ____.

13. Whenever I ask for time off, the principal's reaction to it is ____.

14. My success as a teacher with my pupils is ____.

15. My personal friendship with my pupils is ____.

16. My desire to continue at this school on an indefinite basis is ____.

17. The principal's handling of pupil disciplinary problems referred to him by me is ____.

18. The performance of the guidance counselors at this school in relation to my pupils is ____.

19. As a general statement, the socio-economic background of my pupils at this school is ____.

TEACHER SATISFACTION SCALE (Form D)

Please indicate on the attached sheet the degree of your personal satisfaction with the following items, using 1 as very unsatisfactory, 2 as unsatisfactory, 3 as satisfactory, 4 as very satisfactory and 5 as highly satisfactory. Thus, the figure 1 represents the lowest degree of satisfaction, while the figure 5 is the highest on a 1 to 5 scale.

1. The principal's use of my teacher talents is ____.

2. My own personal sense of achievement at this school is ____.

3. The principals success in working with me as a teacher is ____.

4. The principal's personal interest in me as a human being is ____.

5. The personal relationships among the other teachers and the principal in this school is ____.

6. The casual social relationship between the principal and me is ____.

7. Whenever I make a mistake which becomes known to the principal, my feeling toward him is ____.

8. Whenever a parent criticizes me to the principal, my admiration for the principal is ____.

9. Whenever I take sick leave, the principal's acceptance of my explanation of the absence to me is ____.

10. Whenever I ask for time off, the principal's reaction to it is ____.

11. My success as a teacher with my pupils is ____.

12. My personal friendship with my pupils is ____.

13. My desire to continue at this school on an indefinite basis is ____.

MR. HELWIG [illegible]

N° 378

[illegible]

Form C, TJS
8/29/69

Spearman-Brown $r = \frac{2r_{1/2}}{1+r_{1/2}}$

$= \frac{2(.85)}{1+.85} = \frac{1.70}{1.85} = .92$

[illegible] $r =$ $\boxed{.92}$

RELIABILITY COEFFICIENTS FOR FORM C OF THE TEACHER SATISFACTION SCALE (TSS)

New data gathered during this quarter with Form C of the TSS was subjected split-half reliability coefficient analysis with the Spearman-Brown prophecy formula applied in each instance. Several combinations were attempted in order to analyze the data and to obtain the following reliability coefficients--all pointing the high reliability of Form C.

Three elementary schools, Yates Elementary School, Newport News and J. B. Stuart and Brookwood Elementary Schools, Norfolk, Virginia supplied data for one of these combinations. The respective N's for these schools were 22, 24, and 28, totaling 76 teachers.

The odd-even item reliability coefficient for eighteen items of the TSS resulted in a rather high .99 reliability coefficient for these three elementary schools. Item 10, "the performance of the guidance counselors at this school in relation to my pupils is ____," of the nineteen item TSS was not completed by these elementary school teachers for none of these schools were staffed with such guidance counselors.

Odd-even respondent reliability coefficients by school were also computed with the following results.

Yates Elementary School	.85	N=22	($p < .01$)
Brookwood Elementary School	.85	N=24	($p < .01$)
J. E. B. Stuart Elementary School	.86	N=28	($p < .01$)
		N_t=74	

The odd-even *respondent* reliability coefficients *by school* obtained during the last quarter with Form B of the *TSS* follow to indicate some comparisons.

Aragona Elementary School	.70	N=28	($p < .01$)
Princess Anne High School	.71	N=42	($p < .01$)
Bayside High School	.80	N=61	($p < .01$)
First Colonial High School	.87	N=63	($p < .01$)
Kellam High School	.86	N=40	($p < .01$)
		N_t=233	

Another odd-even item reliability coefficient for a larger global assessment was obtained by computer through the Engineering Center, Old Dominion College. The N for this sample added to 378 teachers from Churchland High School and William E. Waters Junior High School, Portsmouth, Virginia; William H. Taylor Elementary School and Rosemont Junior High School, Norfolk, Virginia; Princess Anne, Kempsville, Kellam, and Bayside High Schools, Virginia Beach, Virginia; and Pensacola Christian School (K-12), Pensacola, Florida. This last school's data was obtained through the efforts of a graduate student enrolled in a course taught by this investigator.

For this obtained odd-even item data, Item 18 on the *TES*, "As a general statement, the socio-economic background of my pupils at this school" was treated as a dead item to provide the necessary "evenness" for the odd-even item correlation. For the one elementary school in the sample Item 18 received a 2.5 value.

The reliability coefficients given above for Yates, Brookwood and J. B. Stuart Elementary Schools were computed by this investigator with a calculator, while the 378 teacher sample was done by computer. By this means, another check on the accuracy of the work, it was believed, could be inferred. The odd-even item reliability coefficient for the 378 teacher sample with the Spearman-Brown prophecy formula applied was .87. A copy of the printout sheet is attached.

It must be concluded that Form C from the several perspectives and samples produced high reliability coefficients. It may seemingly, because of its higher reliability coefficients, be a slight improvement over Form B.

THE FACTORIAL ANALYSIS OF FORM C,

TEACHER SATISFACTION SCALE

Form C of the Teacher Satisfaction Scale was also subjected to a new factorial analysis with data obtained during March and April, 1969 from the following school faculties: Churchland High School and William E. Waters Junior High School, Portsmouth, Virginia; William H. Taylor Elementary School, Norfolk, Virginia; Princess Anne, Kempsville, Kellam and Bayside High Schools, Virginia Beach, Virginia; and Pensacola Christian School (K-12), Pensacola, Florida. All these schools but the last are public schools. The N for the sample of this factorial analysis amounted to 378 teachers.

The items labeled as variables 1 through 19 on the printout sheet correspond to Items 1 through 19 on Form C. Three rotated factors from the factorial analysis with Form B had been tentatively identified as Principal-Teacher Professional Relationships, Principal-Teacher Familiarity (derived from Halpin's Intimacy subdimension on his OCDQ) and Teacher on-the-Job Security. A fourth hypothetical factor, Teacher-Pupil Relationships, was also added to Form C as another probable underlying factor capable of explaining some additional variance in "within-school building" teacher satisfaction. The last, of course, had to be subjected, as the other three more tentatively identified factors, to factorial analysis. Items 1 to 5 inclusive on Form C were arranged together on the assumption that on the printout sheet these five items (variables) would load significantly only on one factor of the four factor analysis (Significance as with the factorial analysis of Forms A and B was considered to be a factor loading of .30 or higher). This sought-after factor was to have been Principal-Teacher Professional Relationships. In a similar arrangement, Items 6 through 9 sought to identify Principal-Teacher Familiarity; Items 10 through 13, Teacher on-the Job Security; and Items 14 through 18, Teacher-Pupil Relationships.

Before the results of the factorial analysis are interpreted from the printout sheet, it should be pointed out that the factor, Principal-Teacher Familiarity, as conceptualized, was not strictly identical with Halpin's Intimacy subdimension. The latter was operationalized by Halpin to refer to a faculty's social needs as a group qua group; here Principal-Teacher Familiarity was operationalized to refer to principal-individual teacher social needs as well as individual teacher-other teacher and principal-other teacher social needs.

A study of the printout sheet does not reveal the neat concordance sought through the construction of Form C. Fifty-nine per cent of the common variance is explained by Form C with this 378 teacher sample, but the three factors identified with Form B plus the fourth tentative factor added to Form C escape the neat identifications anticipated. But some rationale explanations from the Guba and Getzels model mentioned above can be supported statistically from the significant correlations of .30 or higher on Factor I of the printout.

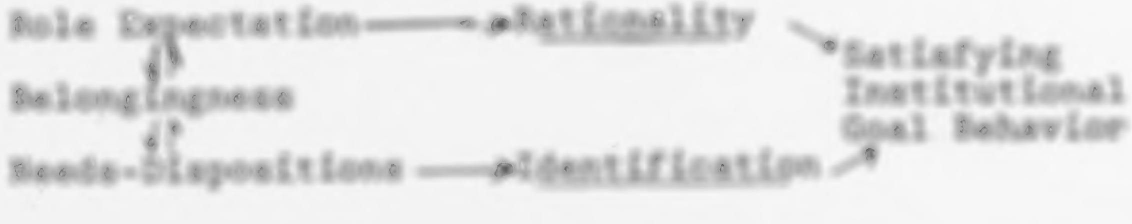
Items 1, 3, 4 (.287), 5, 6, 8, 9, 10, 11, 12, 13, 16, and 17 load significantly on Factor I tentatively identified with the Form B factorial analysis, as Principal-Teacher Professional Relationships. Items 1, 4, 5, 12, 16, and 17 also load significantly on the other three factors, but a study of these items and the remaining significant items under Factor I would call for a modification of the labeling of Factor I to Principal-Teacher Relationships. This modification is in keeping with Kerlinger, who is quoted in greater detail below. Said Kerlinger about the continued modification of factorial identifications: "Factor names are simply attempts to epitomize the essence of factors. They are always tentative, subject to later confirmation or disconfirmation." The new label, Principal-Teacher Relationships, of course, does not go much beyond the obvious with respect to teacher morale, but the evidence here does, nevertheless, suggest that teachers do perceive the principal and their role expectations of him to be an important determinant to their "morale"--whatever this individual or collective psychic phenomenon may be. Perhaps it is not morale qua morale, but overt satisfying institutional goal behavior by the teachers themselves: that is, morale as thus conceived is not something like fever which can be measured with a thermometer so much as it is overt role behavior by the teachers themselves toward satisfying (and perhaps, productive) institutional goal behavior. The Guba and Getzels model is invoked for this conclusion and more later will be said about it to support the statistical conjectures derived from this factorial analysis.

Nevertheless, Items 1, 3, 5, 6, 8, 9, 10, 11, 12, 13, and 17 load significantly under Factor I and all relate to perceptions by the teacher to some role expectation by him of the principal's behavior. On the other hand, Items 5 and 16 also load significantly under Factors III and II respectively. Excluding these last two items, the remaining loadings cited above definitely refer to teacher's role expectations of his principal.

Items 1, 2, 14, 15, and 16 load significantly on Factor II. Items 14 through 19, it will be recalled, were added to determine of teacher-pupil relationships were contributory to teacher morale. Items 14, 15, and 16 load significantly and thus may be contributory, while items 17, 18, and 19 do not. Items 1 and 2, however, also load significantly and thus the teacher's perception of the principal's use of former's talents and the teacher's own sense of achievement load under the same factor. Items 14 and 15, which relate to teacher-pupil interaction and item 16 which relates to a teacher needs-disposition load significantly under this same factor. Thus, those items which load significantly under factor II refer to individual teacher ego needs-dispositions.

Items 4, 5, 17, and 18 load significantly under factor III. No common theoretical attributes under a single construct (factor) are discernible under factor III. Items 7, 12, 17, 18, and 19 load significantly under factor IV and thus again no common theoretical attributes under a single construct are readily discernible.

From the statistical evidence above and again utilizing the following theoretical model, a shortened form D of the TSS is the next step.


Role Expectation
Rationality
Belongingness
Satisfying Institutional Goal Behavior
Needs-Dispositions
Identification

(J. W. Getzels and E. G. Guba, "Social Behavior and the Administrative Process," The School Review 65 (Winter, 1957) 430-439. See Chapter II of the dissertation for a discussion of this theoretical model)

In brief, only those items on the printout which loaded significantly under Factors I and II are now to be included on the new Form D under the assumption that satisfying institutional goal behavior by the individual teacher within the school building is most likely when his perceptions of his principal's role expectations and the teacher's own needs-dispositions near congruence, thus promoting within the teacher a sense of belongingness. Moreover, the principal's role expectations by the teacher must have for him some rationality as well as the teacher's own needs-dispositions must give him some sense of identification toward institutional goal behavior. Thus teacher morale or satisfaction from hereon is not defined purely as an individual psychic state as congruence of perception along the two dimensions of principal role expectation and teacher needs-dispositions--both dimensions, of course, emanating from the teacher's own perceptions. Thus teacher satisfaction, as thus conceived and operationalized on Form D, results in overt satisfying institutional goal behavior by the teacher--in short, a form of homeostasis.

Future research will thus center on the field testing of Form D, a copy of which is attached, and the subjecting of Form D as well as Form C to two and three rotational factor solutions in order to test the Guba-Getzels theoretical model.

"In considering the scientific value of factor analysis," said Kerlinger, "the reader must be cautioned against attributing reality[7] and uniqueness to factors that do not exist. The danger of reification is great. It is easy to name a factor and then to believe there is a reality behind the name. But giving a factor a name does not give it reality. Factor names are simply attempts to epitomize the essence of factors. They are always tentative, subject to later confirmation or disconfirmation. Then, too, as Wolfe and others have pointed out, factors can be produced by many things. Anything that introduces correlation between variables creates a factor. Differences in sex, education, social and cultural background, and intelligence can cause factors to appear. Factors also differ--at least to some extent--with different samples. Response sets or test forms may cause factors to appear. Despite these cautions, it must be said that factors do repeatedly emerge with different tests, different samples and different conditions. When this happens, we can have fair assurance that there is an underlying trait which we are successfully measuring."

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[7] Kerlinger. Foundations of Behavioral Research, p. 683.